

Joint Pub 3-50.2



Doctrine for Joint Combat Search and Rescue



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PREFACE

1. Scope

This publication incorporates joint and Service doctrine into a single-source publication and provides the guidance and procedures necessary to plan, coordinate, and conduct a timely and tailored joint combat search and rescue (CSAR) response across the range of military operations.

2. Purpose

This publication has been prepared under the direction of the Chairman of the Joint Chiefs of Staff. It sets forth doctrine to govern the joint activities and performance of the Armed Forces of the United States in joint operations as well as the doctrinal basis for US military involvement in multinational and interagency operations. It provides military guidance for the exercise of authority by combatant commanders and other joint force commanders and prescribes doctrine for joint operations and training. It provides military guidance for use by the Armed Forces in preparing their appropriate plans. It is not the intent of this publication to restrict the authority of the joint force commander (JFC) from organizing the force and executing the mission in a manner the JFC deems most appropriate to ensure unity of effort in the accomplishment of the overall mission.

3. Application

a. Doctrine and guidance established in this publication apply to the commanders of combatant commands, subunified commands, joint task forces, and subordinate components of these commands. These principles and guidance also may apply when significant forces of one Service are attached to forces of another Service or when significant forces of one Service support forces of another Service.

b. The guidance in this publication is authoritative; as such, this doctrine will be followed except when, in the judgment of the commander, exceptional circumstances dictate otherwise. If conflicts arise between the contents of this publication and the contents of Service publications, this publication will take precedence for the activities of joint forces unless the Chairman of the Joint Chiefs of Staff, normally in coordination with the other members of the Joint Chiefs of Staff, has provided more current and specific guidance. Commanders of forces operating as part of a multinational (alliance or coalition) military command should follow multinational doctrine and procedures ratified by the United States. For doctrine and procedures not ratified by the United States, commanders should evaluate and follow the multinational command's doctrine and procedures, where applicable.

For the Chairman of the Joint Chiefs of Staff:



WALTER KROSS
Lieutenant General, USAF
Director, Joint Staff

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EXECUTIVE SUMMARY

COMMANDER'S OVERVIEW

- **Describes Combat Search and Rescue (CSAR) Responsibilities and Command Relationships**
 - **Explains CSAR Procedures and Methods**
 - **Outlines Coordination and Planning Procedures**
 - **Defines CSAR Intelligence and Support Requirements**
 - **Details CSAR Capabilities of the Services and Special Operations Forces**
-

Responsibilities

Joint force commanders (JFCs) have primary authority and responsibility for Combat Search and Rescue (CSAR) in support of US forces within their areas of responsibility/joint operations areas.

Each Service and the US Special Operations Command are responsible for performing combat search and rescue (CSAR) in support of their own operations. **JFCs normally delegate responsibility to recover personnel to the joint force component commanders.** Additionally, **the JFC should establish a joint search and rescue center (JSRC)** to monitor recovery efforts; to plan, coordinate, and execute joint search and rescue and CSAR operations; and to integrate CSAR operations with other evasion, escape, and recovery operations within the geographical area assigned to the joint force. **JFCs normally exercise control of all forces committed to a joint CSAR operation.** Component commanders who are part of a joint force are responsible for planning and conducting CSAR operations in support of their own operations that are conducted while executing the JFC's campaign and operation plans. **Unit commanders** should be prepared, based on inherent capabilities, to conduct CSAR in support of their own operations and to provide mutual CSAR support to other units. Such CSAR support should be planned concurrently with ongoing offensive and/or defensive combat operations and should take into account the capabilities of adjacent units.

Joint Search and Rescue Center/Rescue Coordination Center

The joint force commander establishes a joint search and rescue center.

The JSRC is a **primary search and rescue facility** suitably staffed by supervisory personnel and equipped for planning, coordinating, and executing joint CSAR operations within the geographical area assigned to the joint force. The JFC may task Service and special operations component members of a joint force to participate in the operation of the JSRC. **The facility is operated jointly** by personnel from two or more Service or functional components or it may have a multinational staff of personnel from two or more allied or coalition nations (multinational search and rescue center).

The component commanders establish rescue coordination centers.

Component commanders should establish a rescue coordination center (RCC) to coordinate all component CSAR activities, including coordination with the JSRC and other component RCCs as appropriate. A trained and designated CSAR representative, commonly referred to as a component search and rescue controller, is responsible, in the name of the component commander, for the coordination of component forces committed to joint CSAR operations.

Joint CSAR Procedures

Component rescue coordination centers represent the first line of response for CSAR incidents.

After receiving a distress indicator, **the unit requesting CSAR support should notify the component RCC, which should notify the JSRC**. After coordination with component RCCs, the JSRC assigns a CSAR mission coordinator and provides all available data to the person or organization so designated. **The CSAR mission coordinator** confirms the distress call, isolated personnel authentication data, and assists in planning the CSAR mission.

Joint CSAR Methods

Methods utilized for search and recovery depend on the situation.

Joint CSAR searches include electronic and/or visual search methods that normally focus on a maritime, coastal, or inland environment, and should be specifically tailored for each CSAR incident. In addition to the basic environment, **enemy activity, weather, time of day, and available CSAR capable resources all play an important role in selection the CSAR search method** and search area designation. Joint CSAR forces may employ any one of a variety of procedures to recover isolated personnel. The specific method of recovery employed will be dictated by the situation. Regardless of situation, **isolated personnel** must be knowledgeable of recovery procedures and prepared to assist in their recovery to the greatest extent possible.

Command and Control

The JFC should grant authority to the JSRC commensurate with CSAR responsibilities assigned.

JFCs normally exercise **command authority for CSAR either through a designated component commander** whose RCC has been designated by the JFC to function also as the JSRC **or through a designated JSRC Director**, if the JSRC is part of the JFC staff. Component RCCs also should be granted authority commensurate with CSAR responsibilities assigned. **Component commanders normally exercise their authority to task component forces committed to conduct CSAR operations through component CSAR controllers.**

Coordination

Coordination is the key element for successful prosecution of joint CSAR missions.

Coordination should be both vertical and horizontal and should be conducted continuously during all phases of a CSAR operation. **Principal nodes** where coordination takes place and major functions of that coordination are within the JSRC, between the JSRC and components, between the JSRC and RCCs, between the joint force and external agencies, and through liaison officers.

Communications

CSAR operations depend on successful communications.

Communications play a major role in the normally short-notice and rapidly evolving dynamics associated with CSAR operations. Joint and component communications planning should include potential CSAR requirements. **The primary form of CSAR communications will be verbal**—by radio and/or landline in both secure and unsecure modes. **Every effort should be made to use secure communications** in a hostile environment as the compromise of critical information could easily jeopardize the entire CSAR effort. Communications equipment required by the JSRC and component RCCs can include radios (including satellite communications), landlines, computer networks, and classified-capable facsimile machines.

Planning

Joint and supporting CSAR plans should be designed with flexibility to employ resources in the most efficient and effective manner.

Joint CSAR planning should be conducted on a routine basis by established JSRCs, in conjunction with development of operation plans and operation orders. **The joint force should develop a complete CSAR posture** by using an orderly, logical planning process that is fully complementary to ongoing mission-oriented operational planning. This concurrent planning approach ensures a CSAR concept of operations and support that details specific responsibilities and authority.

Factors that may play an important role in CSAR planning are airspace deconfliction, supporting arms requirements and coordination, military deception, and operations security. CSAR planning must take into account precautionary CSAR, threat analysis, climate and weather information, astronomical conditions, and operational constraints.

Intelligence Requirements

Current intelligence plays a vital role in the planning and conduct of all CSAR operations.

The enemy threat will have the greatest impact on search criteria and the method of recovery to be used. As each CSAR incident develops, JSRC and component RCC personnel should continually update their intelligence data to determine if changes in CSAR plans and ongoing CSAR operations are required. **To obtain current intelligence, the JSRC, component RCCs, and CSAR-capable units should continually review any intelligence information available.** Intelligence information pertinent to CSAR operations should be displayed on situation maps that are readily available to CSAR planners. The JSRC, component RCCs, and CSAR-capable units should ensure that intelligence officers at all levels of command are aware of any special needs required for developing courses of action for CSAR operations.

CONCLUSION

This publication provides a single-source that contains relevant joint and Service CSAR doctrine and details the guidance and procedures necessary to plan, coordinate, and conduct a timely and tailored joint CSAR response across the range of military operations.

CHAPTER I

RESPONSIBILITIES

"If it should be otherwise, if we should have to leave our bleached bones on these desert sands in vain, then beware of the anger of the Legions!"

Marcus Flavinus
Roman Centurian, (c. 50 BC)

1. Services and the United States Special Operations Command (USSOCOM)

a. Each Service and USSOCOM is responsible for performing combat search and rescue (CSAR) in support of their own operations, consistent with their assigned functions. In so doing, each Service and USSOCOM should take into account the availability and capability of the CSAR-capable forces of the others, including the US Coast Guard (USCG).

b. The joint force commander (JFC) may task Service and special operations component members of a joint force to participate in the operation of the joint search and rescue center (JSRC) and provide trained personnel to staff the center.

c. Additional information on Services, USCG, and USSOCOM capabilities is contained in Appendixes A through F.

2. Joint Force Commanders

a. JFCs have primary authority and responsibility for CSAR in support of US forces within their areas of responsibility (AORs)/joint operations areas (JOAs), including civilian personnel, such as Civil Reserve Air Fleet crew members and deployed technical representatives. When planning and executing this responsibility, JFCs should ensure that appropriate host-nation policies, laws, regulations, and capabilities are taken into consideration.

b. JFCs normally delegate responsibility to recover personnel to the joint force component commanders. Additionally, the JFC should establish a JSRC to monitor recovery efforts; to plan, coordinate, and execute joint search and rescue (SAR) and CSAR operations; and to integrate CSAR operations with other evasion, escape, and recovery operations within the geographical area assigned to the joint force. **Joint SAR and CSAR operations are those that have exceeded the capabilities of the component commanders in their own operations and require the efforts of two or more components of the joint force to accomplish the operation.** Established subordinate JFCs such as commanders of subordinate unified commands and standing joint task force (JTF) commanders also should establish a standing JSRC (or its functional equivalent). Contingency JTF commanders should establish a JSRC (or its functional equivalent) in the earliest stages of forming the JTF.

- In those joint operations in which there is significant involvement by joint force components and their staffs, **the JFC normally should establish the JSRC by tasking one of the component commanders to designate their component rescue coordination center (RCC) to function also as the JSRC.** The designated component should possess the necessary forces and capabilities, such as command, control, communications, computers, and intelligence (C4I), and surveillance, to plan and execute expeditiously joint CSAR operations.

The JFC should give the designated component commander the authority and responsibility that the JFC deems necessary for operating the JSRC so as to properly provide joint CSAR capability for the joint force. **The designated component commander designates the JSRC Director**, who has overall responsibility for operation of the JSRC.

- If a joint operation is limited in nature and there is no significant involvement by joint force component forces or their staffs, **the JFC may establish a JSRC (or its functional equivalent) as part of the JFC's staff. In this case, the JFC normally should designate a JSRC Director** as the JFC's representative with overall responsibility for operation of the JSRC.

c. **Control of Combat Search and Rescue Forces.** JFCs normally exercise control of all forces committed to a joint CSAR operation through a designated component commander or through the JSRC. Specific guidance regarding control of forces committed to a joint CSAR operation is provided in Chapter III, "Command, Control, Coordination, and Communications."

d. **Component Support.** JFCs should ensure all joint force components support CSAR operations of the other components to the fullest extent practicable.

e. **Adjacent Joint Force Commanders.** JFCs should provide mutual support in CSAR matters of common concern to adjacent JFCs. Normally, this mutual CSAR support is coordinated through the respective JSRCs and may require the temporary exchange of liaison personnel to facilitate a timely and appropriately organized CSAR response.

3. Joint Search and Rescue Center

See Figure I-1

The JSRC is a primary SAR facility suitably staffed by supervisory personnel and equipped for planning, coordinating, and executing joint SAR and CSAR operations within the geographical area assigned to the joint force. **The facility is operated jointly by personnel from two or more Service or functional components** or it may have a multinational staff of personnel from two or more allied or coalition nations (multinational SAR center). **The JSRC should be staffed equitably by trained personnel drawn from each joint force component, including USCG participation where practical.** During peacetime, standing JSRCs normally assist in developing integrated evasion and recovery concepts of operations to support operation plans (OPLANs), operation plan in concept format (CONPLANs), and peacetime operations. The standing JSRCs also coordinate training and exercises in order to provide a trained joint staff element for combat operations that is capable and ready to plan, coordinate, and execute joint CSAR missions as tasked by the JFC. Other typical CSAR-related JSRC responsibilities and functions in peacetime and combat are listed below. Additional JSRC responsibilities related to evasion and recovery (E&R) operations are contained in Joint Pub 3-50.3, "Joint Doctrine for Evasion and Recovery." See Chapter VI, "Joint Combat Search and Rescue Planning," Figure VI-1, for a typical JSRC organization chart.

a. Peacetime Operations

- Develop joint force CSAR standing operating procedures (SOPs).
- Develop CSAR communications plans.
- Establish reporting requirements for the JSRC and component RCCs.

SEARCH AND RESCUE CENTERS

Joint Force Commanders

Joint Search and Rescue Center (JSRC): Plans, coordinates, and executes joint search and rescue operations within the geographical area assigned to the joint force.

Component Commanders

Rescue Coordination Center (RCC): Coordinates all component combat search and rescue activities including coordination with the joint search and rescue center and other component RCCs.

Figure I-1. Search and Rescue Centers

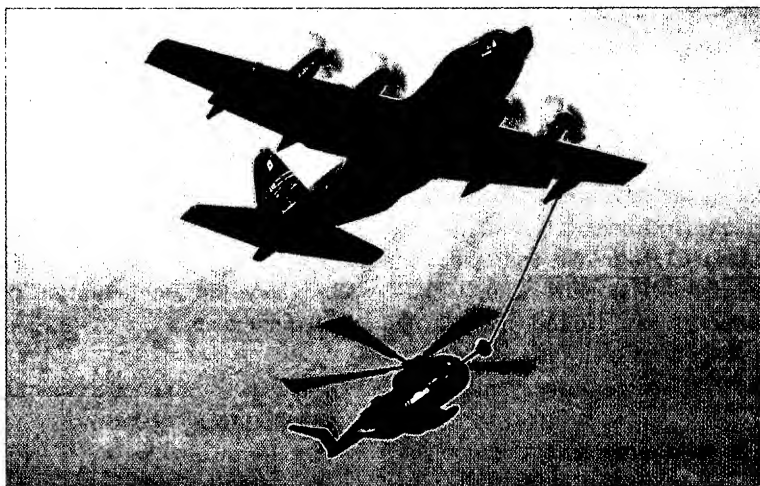
- Assist in the development of CSAR appendixes to Annex C (Operations) to OPLANs, CONPLANs, and operation orders (OPORDs). Ensure the CSAR appendixes are linked to related appendixes for casualty affairs, medical, repatriation, and mortuary affairs.
 - Coordinate and deconflict component E&R plans and review them for supportability.
 - Develop an integrated personnel recovery concept of operations to support peacetime operations.
 - Conduct or provide on-the-job training (OJT) and informal training for JSRC personnel and component RCC augmentation personnel.
 - Organize and conduct CSAR mission training exercises for the joint force.
 - Coordinate peacetime SAR activities to provide realistic training for the JSRC in operational procedures.
 - Develop a plan to transition from peacetime to combat operations.
 - Develop augmentation personnel requirements.
 - Establish additional communications support requirements.
 - Establish dedicated intelligence support requirements, to include joint force joint intelligence center (JIC)/joint intelligence support element (JISE) support requirements.
- b. Combat Operations**
- Develop a joint force CSAR threat decision matrix tailored to the current threat analysis.
 - Develop and disseminate special instructions (SPINS) to be included in air tasking orders to specify the primary theater CSAR and recovery guidance, concepts, and specific procedures to be followed by all high-risk combatants.

- Alert appropriate components of the location where isolated personnel are known or believed to be located.
- Coordinate with national, theater JIC, host-nation, and component intelligence resources to gather information relating to the location and status of isolated personnel and the threat that may affect their successful recovery.
- Coordinate with the joint force psychological operations (PSYOP) officer on ways to influence favorably

Agency once the recovery mission is complete and the JFC no longer has a requirement to maintain the files. The files should not be destroyed.

4. Component Commanders

Component commanders who are part of a joint force are responsible for planning and conducting CSAR operations in support of their own operations that are conducted while executing the JFC's campaign and operation plans. The planning of such operations should take into account



Component Commanders should plan for and conduct CSAR operations using all capabilities available.

the local population regarding CSAR efforts.

- Coordinate and deconflict mutual CSAR support operations by joint force components and multinational forces.
- Monitor all CSAR incidents prosecuted by component RCCs.
- Maintain a data base and file on each isolated person until recovery is complete. Forward all files and the data base to the Joint Services Survival, Evasion, Resistance, and Escape (SERE)

the availability and capability of forces of other components of the joint force, including the USCG if assigned. Component commanders normally should fulfill their CSAR responsibilities through the following actions.

a. Rescue Coordination Center. Component commanders should establish an RCC (or functional equivalent, such as the Rescue Coordination Team (RCT) for the Navy) to coordinate all component CSAR activities, including coordination with the JSRC and other component RCCs as appropriate. If a component commander does

not establish an RCC, those CSAR activities and responsibilities normally assigned to the RCC should be assigned to another component staff organization, normally the operations section. For example, the joint force special operations component commander (JFSOCC) normally designates the joint force special operations component (JFSOC) Joint Operations Center (JOC) to carry out these responsibilities. In either case, **a trained and designated CSAR representative, commonly referred to as a component search and rescue controller, is responsible, in the name of the component commander, for the coordination of component forces committed to joint CSAR operations.** Other typical RCC responsibilities and functions include the following:

- Notify and coordinate with the JSRC when conducting unilateral CSAR missions.
- Coordinate with the JSRC for CSAR support provided to or received from other components.
- Coordinate for component augmentation personnel to the JSRC.
- Develop specific component RCC procedures.
- Extract planning factors from the JSRC's theater E&R concept of operations and provide them to subordinate units for the development of evasion plans. This will enable units to develop supportable and feasible evasion plans. Coordinate and develop unit and personal evasion plans of action (EPAs), as required. Follow guidance in Joint Pub 3-50.3, "Joint Doctrine for Evasion and Recovery," for development of EPAs and procedures for handling EPAs.

- Maintain staff cognizance for preparing and maintaining isolated personnel reports (ISOPREPs) (see Figures J-1 and J-2 in Appendix J, "Instructions for Isolated Personnel Report [DD Form 1833]").
- Develop and review CSAR and E&R appendixes to Annex C (Operations) for component supporting OPLANs, CONPLANs, and OPORDs.
- Forward pertinent data regarding isolated personnel, their status, and/or location to the JSRC upon request.
- Maintain a file on each isolated person until recovery has been completed.

b. When a Component Rescue Coordination Center is designated as the JSRC. In those cases where the JFC has tasked a component commander to designate the component RCC to function also as the JSRC, **the JFC should give the designated component commander the authority and responsibility that the JFC deems is necessary for operating the JSRC** so as to properly provide joint CSAR capability for the joint force.

c. Mutual Combat Search and Rescue Support. Component commanders should **provide mutual support to the CSAR operations of the other components** to the greatest extent possible. Such support normally is requested and coordinated through the JSRC using established CSAR communications channels maintained and monitored in the RCC.

d. Augmentation Personnel. When tasked by the JFC, **component commanders should provide an equitable share of personnel to staff the JSRC.** Augmentation personnel should be trained and familiar with

joint CSAR plans and operations and with the CSAR capabilities and procedures of the component from which they are assigned.

e. Component commanders should **take appropriate steps to ensure that subordinate units and key personnel are familiar with CSAR joint tactics, techniques, and procedures** (see Joint Pub 3-50.21, "Joint Tactics, Techniques, and Procedures for Combat Search and Rescue"), joint force CSAR SOPs, CSAR tactics, techniques, and procedures (TTP) in general, and any unique or specific CSAR TTP that may especially pertain to their areas of operations (AOs) and/or component operations.

f. **Unit and Personal Evasion Plans of Action.** Component commanders should **ensure that units and personnel develop and maintain current unit and personal EPAs.** These EPAs should be updated regularly and be readily available to the JSRC upon request through the RCC. When EPAs are largely mission-specific, such as is normally the case for aircrews, they should be developed and updated as requirements dictate.

g. **Isolated Personnel Reports.** Component commanders should **ensure that all subordinate units properly prepare and maintain ISOPREPs** (to include fingerprinting) for personnel whose duties may place them in danger of isolation. The DD Form 1833 should be considered as the primary means of authenticating isolated personnel (see Figures J-1 and J-2 in Appendix J, "Instructions for Isolated Personnel Report [DD Form 1833]"). Component RCCs should ensure ISOPREPs are readily available to the JSRC or other higher authority upon request. Units should maintain two original ISOPREPs for each individual for the following reasons:

- One original may be sent to a higher level organization, i.e., RCC or JSRC.

- An original may be required by the unit recovering the individual. The availability of an original photo and high quality fingerprints can simplify the authentication procedures.
- The capability to make quality copies (photo and fingerprints) may not be possible at the deployment location.

5. Unit Commanders

Unit commanders **should be prepared, based on inherent capabilities, to conduct CSAR in support of their own operations and to provide mutual CSAR support to other units.** Such CSAR support should be planned concurrently with ongoing offensive and/or defensive combat operations and should take into account the capabilities of adjacent units. **CSAR requirements exceeding available capabilities should be forwarded to the component RCC.** Unit commanders normally should fulfill their CSAR responsibilities through the following actions:

a. **Unit Planning.** Unit commanders should include **CSAR planning as part of all operation planning.** They should forward any CSAR support requirements that are beyond their capabilities to the component RCC, such as requirements for additional CSAR-capable forces, CSAR planning information, and requests for evasion aids.

b. **Unit Training.** Unit commanders should **ensure that assigned and attached personnel are familiar with the publication, joint force CSAR SOPs, and any specific component CSAR TTP that have been developed.** Unit commanders also should ensure that assigned and attached personnel are familiar with the evasion procedures set forth in Joint Pub 3-50.3, "Joint Doctrine for Evasion and Recovery." Unit commanders normally should accomplish

CSAR unit training responsibilities through development of unit SOPs, specialized training programs, and participation in Service and joint exercises.

c. Alerting Combat Search and Rescue Forces. Unit commanders who require active CSAR support should make the requests, via secure means, directly to their component RCC. Because timing is normally critical for successful CSAR missions, expediting requests by use of secure radio and land lines is appropriate, but only when followed up with message text. A message text formatted search and rescue incident report (SARIR) is the preferred vehicle for requesting CSAR support from the

unit level, although within component chains of command unformatted or other designated message formats may be used up to the component RCC. Such a request needs to contain the nature of the distress and as much of the information, shown in Figure I-2 as possible:

d. Alerting Operational Forces. Unit commanders should develop procedures to alert their combat forces operating in or overflying areas where isolated personnel are known to be located. If evidence and/or signals from these personnel are observed, unit commanders should ensure that this information is expeditiously passed to the component RCC.

SEARCH AND RESCUE INCIDENT REPORT INFORMATION

- Type, number, tactical call sign, and radio frequency of aircraft, ships, or ground units in distress
- Location, if known, or course and speed, last known position, and intended track
- Isolated personnel reports for the individuals concerned
- Type and amount of survival equipment
- Evasion plans of action of the individuals concerned
- Any intelligence regarding enemy activity that caused the incident and current enemy activity in the area
- Date-time group of last sighting and/or contact and rescue attempts made, if any
- Additional information that may assist combat search and rescue forces

Figure I-2. Search and Rescue Incident Report Information

e. **Preparation and Maintenance of Evasion Plans of Action.** Unit commanders should develop procedures to ensure that both individual and unit EPAs are feasible, supportable within the JSRC's concept of operations, properly prepared, classified, and regularly updated. EPAs are maintained at the unit, and unit commanders should ensure that the EPAs are readily available upon request from the component RCC or the JSRC. Specific guidance for preparation of EPAs is contained in Joint Pub 3-50.3, "Joint Doctrine for Evasion and Recovery." (See Appendix H, "Evasion Plan of Action.")

f. **Preparation and Maintenance of ISOPREPs.**

- **The ISOPREP** (see Figures J-1 and J-2 in Appendix J, "Instructions for Isolated Personnel Report [DD Form 1833]") is the key document that facilitates recovery; it contains information that enables a recovery force to authenticate evaders. Failure to prepare and maintain ISOPREPs complicates recovery planning, puts the recovery force at risk, and jeopardizes the success of the recovery mission.
- Unit commanders should develop procedures to ensure that ISOPREPs are properly prepared, classified, and safeguarded in accordance with established procedures. Upon notification that a member of their unit is missing or isolated in hostile territory, unit commanders should forward the individual's ISOPREP data to the component RCC by the fastest secure means available. Information passed by telephone or radio should be followed up by message.
- During a contingency, deploying units should turn their completed ISOPREPs over to the appropriate ISOPREP control

point in the AO.

g. **Augmentation Personnel.** Unit commanders provide personnel to staff the component RCC and the JSRC as directed. Every effort should be made to provide trained personnel who are familiar with Service and/or joint CSAR TTP.

6. Isolated Personnel

Isolated personnel are those military or civilian personnel that have become separated from their unit or organization in an environment requiring them to survive, evade, or escape while awaiting rescue or recovery. **Isolated personnel have a responsibility to assist in their own rescue to the maximum extent possible.** Isolated personnel can best assist rescue efforts in their behalf through the following actions:

a. **ISOPREPs.** All personnel with any potential to become isolated should **complete and periodically review personal ISOPREP information.**

b. **EPAs.** All personnel operating in hostile or potentially hostile environments should **develop an EPA or review an existing EPA each time a designated operational area changes.**

c. **Reporting Own Situation.** For aircrew members and some ground units, **initial notification may begin before actual isolation** and should include the nature of the distress, position, course, altitude, speed, medical status, and planned actions. Once isolated, **evaders should attempt to report their situation as soon as feasible** with consideration for such things as enemy threat proximity and SPINS. Initial notification will most likely be by radio transmission, either in the clear or secure. Subsequently, alternative communications procedures should be established based on the current

operational situation. **Isolated personnel should be prepared to provide positional assistance to rescue forces to the greatest extent possible.**

- Isolated personnel should take known and suspected enemy locations into account when signalling their position to rescue forces.
- If isolated personnel become separated from a group, each member should be prepared to provide pertinent information about the dispersal of the group.
- Isolated personnel should inform rescue forces if operational developments require altering an EPA—and hence, the rescue plan. Isolated personnel should likewise be prepared to receive and follow instructions from the rescue force that require them to alter their EPA in order to adapt to operational exigencies.

d. Signalling. Signalling between isolated personnel and rescue forces **may be severely limited or restricted by the capabilities of signalling devices, terrain, weather, medical status, and enemy activity.** Isolated personnel should pay close attention to and explicitly follow instructions of rescue forces to the maximum extent possible given the tactical situation (including enemy positions and medical condition). Isolated personnel should be prepared to respond quickly and accurately to authentication procedures and requests for ISOPREP information.

- Isolated personnel should be able to **properly use all signalling devices issued to them.** They should also be able to improvise signals to improve their chances of being sighted.
- Isolated personnel should carefully **select a signalling site that enhances the signal and has natural or**

manufactured material readily available for immediate use (i.e., high ground or an open space that contains material that could be used for passive signals such as visual ground-to-air strip signals).

- Isolated personnel should take particular care when signalling to avoid disclosing their position to the enemy.
- Specific guidance on CSAR authentication procedures is provided in Chapter III, “Command, Control, Coordination, and Communications.”

e. Evasion

- **Isolated personnel should be prepared to survive and evade until rescued or until they reach friendly forces on their own,** no matter how long it takes. Isolated personnel should remember that evading is always better than capture.
- Isolated personnel who are evading capture should attempt to follow their EPA as closely as possible as it may be the only data known to both the evader and potential rescuers.
- Specific evasion procedures are provided in Joint Pub 3-50.3, “Joint Doctrine for Evasion and Recovery.”

f. Rescue Within Denied Territory. The most important action isolated personnel can take to assist rescue within denied territory **is to provide evidence to friendly forces that they are alive and still evading capture.** Usually, the best time to provide this evidence is at initial notification: Afterward, providing such evidence should be done more covertly and should take into account the enemy situation.

KOREA: A LESSON IN THE VALUE OF RESCUE

The Air Rescue Service (ARS) matured under fire during the Korean War.

Fighting in Korea began 25 June 1950, with the invasion of Communist forces across the 38th parallel into the Republic of South Korea. Barely 4 years old at the outbreak, the young rescue service, after solving early equipment and organizational problems, quickly jelled into a smooth-functioning team that made heroic rescues seem routine, and proved the importance of specially trained units, dedicated to conduct rescue operations.

From the moment President Harry S. Truman committed United States military might, Air Force fighters and bombers flew into action—providing tactical support for land battles and running strategic bombing missions against Communist forces and supply areas, and inevitably, creating the need to retrieve downed air crew members.

Rescue operations weren't easy, particularly during the first months of the war. ARS, geared for peacetime activities, was short of personnel, aircraft, and equipment. But with speed and efficiency, forces were regrouped, centered around the 3rd Rescue Squadron, which had four flights based in Japan and a detachment in South Korea. The 3rd was augmented by the 2nd ARS Squadron, sent to the area on temporary duty, and within 5 months personnel strength doubled.

From the war's outset helicopters were in great demand. The Sikorsky H-5 and H-19 were especially popular, for they seemed made for rescue pickups in rugged terrain that dominated the pockmarked geographical face of Korea. The smaller H-5 had two external "capsules," one on each side of the cockpit, in which survivors or wounded personnel could be transported in relative comfort. The H-19, in contrast, could carry eight litter patients or ten passengers, besides the pilot, co-pilot, and medic. It had more speed, a greater range, and was better suited for all-weather operations. As the war continued on, the H-19s replaced the H-5s where possible. Versatile HU-16s and long range SB-29s were needed too, but were in short supply.

The men of the 3rd, however, were experienced in making do with what was available. The outfit had evolved from the 3rd Emergency Rescue Squadron, which, during World War II, had snatched more than 220 downed air crew members from the enemy's hands.

In Korea the Service's traditional mission of escorting bombers on strikes against the Communists, intercepting distressed aircraft, and recovering downed pilots and airmen was soon expanded. ARS was asked to pick up wounded men at the front and transport them to hospitals in the rear, and to go after flyers who had been shot down far beyond enemy lines.

Units rose immediately to the new challenge. In November 1950, men of the 187th regimental combat team parachuted behind Communist lines into the villages of Suncheon and Sukchon to trap parts of the retreating North Korean army. Within 15 minutes after the first paratrooper touched ground, rescue helicopters were landing to fly out the wounded. It was a major battle, and

before the day was out more than one hundred critically injured soldiers were air lifted over the enemy to mobile surgical hospitals in South Korea.

It was such unprecedented actions as these that pinned a life-saving image on ARS helicopters. Men were now being saved on battlefields, via aerial evacuation, who would have unquestionably died in past wars. Doctors were able to treat critical wounds in time, and severely injured soldiers were not forced to suffer through bone-jarring jeep rides to medical areas. Helo pilots were forging an entirely new concept in rescuing wounded personnel, and it had a strongly beneficial impact on the morale of the United Nations forces fighting in Korea. They came to know that if they were hit no matter how bad, or regardless of the remoteness of their location or apparent hopelessness of their situation rescue crews would make every human effort possible to find them. It was a reassuring feeling.

SOURCE: Taylor, L.B., Jr., That Others May Live, Dutton & Co., 1967.

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CHAPTER II

JOINT COMBAT SEARCH AND RESCUE PROCEDURES

"Consider your corps as your family. Don't think of yourself, think of your comrades; they will think of you. Perish yourself, but save your comrades."

General Mikhail Ivanovich
Notes for Soldiers, (1890)

1. Typical Joint Combat Search and Rescue Incident Sequence of Events

a. **Distress Indicator.** A distress indicator may be received in the form of the following:

- Mayday.
- Nonreturn from a mission.
- Overdue contact.
- Receipt of emergency beacon transmission.
- Sighting of aircraft or vessel going down.
- Report of personnel being isolated by enemy activity.
- Receipt of ground emergency codes used by survivors of downed aircraft.

b. **Unit Requesting Combat Search and Rescue Support.** The unit requesting CSAR support should notify the component RCC, which should notify the JSRC. (NOTE: The distress indicator may be picked up by noncomponent assets such as Airborne Warning and Control System (AWACS) and relayed directly to the JSRC, which may cause multiple reports of the same incident. Nevertheless, personnel should adhere to the procedures outlined below.)

c. Component Rescue Coordination Center

- Assumes duties as CSAR mission coordinator initially and reports the incident to the JSRC.
- Initiates CSAR planning.
- Receives intelligence briefing to determine area threat.
- Designates an ISOPREP control point and obtains ISOPREP data and EPA from units.
- Tasks subordinate CSAR-capable forces and coordinates with the JSRC and the requesting unit.
- Requests additional recovery forces through the JSRC if component CSAR resources are inadequate or insufficient.
- Informs the JSRC if component resources execute the CSAR mission.

d. Joint Search and Rescue Center

- Coordinates JFC tasking of other component RCCs to execute CSAR missions when notified that a component RCC is unable to do so or requires support.

- Coordinates with component commands for use of nondedicated CSAR resources when appropriate.
- Coordinates for use of special operations forces (SOF) with the operations directorate or section (J-3) and the JFSOC component as appropriate.
- Coordinates development of a CSAR task force (CSARTF) with component CSAR controllers when appropriate.
- Coordinates with the intelligence directorate or section (J-2) and/or the special operations component to alert E&R nets, where established and activated, to assist isolated personnel.
- Alerts all forces operating in the area of the CSAR incident to report any evidence of isolated personnel.
- Determines if current operations will provide temporary air superiority in the vicinity of the isolated personnel, resulting in collateral support of the CSAR effort.

e. Assignment of Combat Search and Rescue Mission Coordinator. After coordination with component RCCs, the JSRC assigns a CSAR mission coordinator and provides all available data to the person or organization so designated. Normally, component RCCs represent the first line of response for SAR and CSAR incidents. However, the JSRC may assume the role of CSAR mission coordinator when the following conditions apply:

- RCCs are not established.
- The JSRC receives initial notification.
- The event is sufficiently complex to require response and/or tasking of several component commanders.

- The CSAR mission is beyond the capabilities of conventional CSAR forces and requires SOF response.
- The RCC providing the initial response requests additional assistance and for the JSRC to assume CSAR mission coordinator.
- Current operations or nonavailability of CSAR-capable resources preclude the component commander from initiating or continuing a CSAR response.

f. Combat Search and Rescue Mission Coordinator. The CSAR mission coordinator confirms the distress call, isolated personnel authentication data, and assists in planning the CSAR mission.

g. Isolated Personnel. Isolated personnel confirm distress and authenticate.

h. Evaluation. Recovery forces evaluate the probability of success and execute the CSAR mission.

i. Debriefing. Intelligence personnel debrief recovered personnel in accordance with Joint Pub 3-50.3, "Joint Doctrine for Evasion and Recovery."

2. Joint Combat Search and Rescue Incident Reporting Procedures

a. Individual and Crew. When significant aircraft problems or severely deteriorating tactical conditions warrant, or when bailout, crash landing, or ditching appears imminent, pilots, aircrew, or other distressed personnel normally should accomplish the following:

- **Attempt to establish radio contact by calling on the frequency of last contact or calling on an established common frequency.** When communications are established, the following information

should be transmitted: call sign, nature of distress, type of aircraft or unit, position, course, speed, altitude, number of personnel; and pilot's or unit commander's intentions. This information should be transmitted "in the blind" only when contact with known friendly forces is not possible by any other means.

- **Attempt to maintain the transmission long enough to permit a direction finder plot of the aircraft, unit, or individual position.** In some instances, enemy direction-finding capabilities may preclude continuous transmission.
- If time permits, **turn identification, friend or foe (IFF) equipment to the emergency position.** In some instances, aircrews may elect to not turn their IFF equipment to emergency to prevent highlighting the aircraft to enemy forces.

b. Unit

- **Unit commanders provide for the security of their forces by considering CSAR contingencies in mission planning.** When notified of a subordinate element's distress, the unit commander decides if immediate on-scene support is appropriate and may designate an on-scene commander (OSC) for escort, communications, or other immediate needs. **Chances of successful rescue are improved by acting quickly and using all immediately available resources.** When immediate CSAR is not possible or available, the unit commander expeditiously requests CSAR, using the most secure radio system available. Such requests should be followed by appropriate message traffic.

- Unit commanders also need to report their present capability to conduct CSAR operations and the status, if any, of ongoing CSAR in support of their own operations. Information to be included in the unit commander's request for active CSAR support is found in Figure I-2.

c. **Component Rescue Coordination Center.** The component RCC should forward CSAR incident information received from units and individuals or crews to the JSRC by the quickest and most secure means, normally by radio or telephone. Such reports should be followed up using the applicable US message text formats (USMTFs). The component RCC also needs to relay requests for active CSAR support to the JSRC and adjacent RCCs, including the present capabilities of any component CSAR resources and status of any ongoing component CSAR efforts. **The component RCC will be the vital link between isolated personnel and joint CSAR support that may be available within or adjacent to the joint force.**

d. **Joint Search and Rescue Center.** The JSRC should receive reports and information concerning all CSAR incidents involving forces and resources of the joint force. CSAR incident reports and information normally should be forwarded from component RCCs and adjacent JSRCs as appropriate. The JSRC forwards CSAR incident reports and information to higher authority as directed. The JSRC also provides follow-up CSAR incident reports and information to higher authority, adjacent JSRCs, and component RCCs, as appropriate.

e. **Incident Reporting.** Typical joint CSAR incident reporting is shown in Figure II-1.

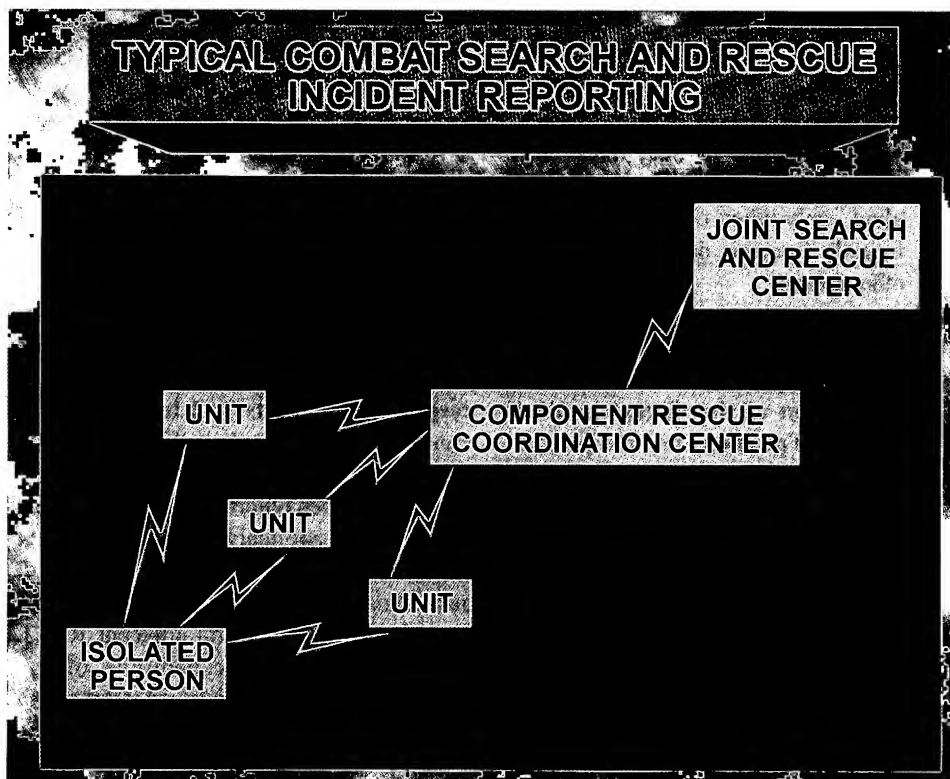


Figure II-1. Typical Combat Search and Rescue Incident Reporting

3. Joint Combat Search and Rescue Search Methods

Joint CSAR searches include **electronic and/or visual search methods** that normally focus on a maritime, coastal, or inland environment, and should be specifically tailored for each CSAR incident. In addition to the basic environment, enemy activity, weather, time of day, and available CSAR-capable resources all play an important role in selection of the CSAR search method and search area designation.

a. Electronic Searches. Search radars and direction-finding or homing equipment may be used to conduct electronic searches. Search radars that may be available for CSAR missions include surface vessel radars, forward-looking airborne radars, and side-looking airborne radars. Electronic searches involving use of direction-finding or homing

equipment may be limited initially by sending (i.e., emergency locator beacon) and receiving (i.e., homing adaptor) capabilities of distressed personnel and searchers, respectively, and subsequently by enemy activity.

b. Maritime Searches. Maritime searches normally involve some combination of surface and air search and rescue units (SRUs). Specific guidance on selecting search area designation methods and other maritime SAR planning factors that are pertinent to CSAR planning, such as aerospace drift, maritime drift, and water temperature, are found in Joint Pub 3-50 (Commandant (US Coast Guard) Instruction (COMDTINST) M16120.5 (Series)), "National Search and Rescue Manual, Volume I, National Search and Rescue System," and Joint Pub 3-50.1 (COMDTINST M16120.6 (Series)), "National Search and Rescue Manual, Volume II, Planning Handbook." Visual and/or

electronic searches may be conducted using the search area designation methods described below.

- **Boundary Method.** Any square or rectangular area oriented east-west or north-south described by stating the two latitudes and the two longitudes. For example: D-7 boundaries 26N to 27N, 64W to 65W.
- **Corner Point Method.** Any area (except circular area) that can be described by stating in sequence the latitude and longitude of each corner. For example: E-7 corners 23 15N 74 35W to 23 10N 73 25W to 22 20N 73 25W to 22 25N 74 25W to origin.
- **Center Point Method.** Area that can be described by giving the latitude and longitude of the center point and the search radius, if circular, or the direction of the major axis and applicable dimensions, if rectangular. For example: 23 15N 74 35W, 12 nautical miles (nm) or 23 15N 74 35W, 060 degrees true, 144 x 24 nm.
- **Trackline Method.** Area that may be described by stating the track and width of the coverage. For example: C-2 trackline 24 06N 78 55W to 24 50N 75 46W, width 50 nm.

c. **Inland Searches.** Inland searches also normally involve some combination of surface and air SRUs although the search effort is likely to involve mostly aircraft. Repeated searches of the same area are almost always necessary in an inland CSAR incident. Visual and/or electronic searches may be conducted using the search area designation methods described below.

- **Grid Method.** Areas designated by grids on local maps. All SRUs must have the same grid maps. This method of

designating search areas is most often used in inland CSAR incidents.

- **Boundary Method.** Any inland area that is bounded by prominent geographic features that can be described by stating those boundaries in sequence. For example: A-1 boundaries Highway 15 to the south, Lake Merhaven to the west, Runslip River to the north, and Bravado mountain range to the east.
- **Corner Point Method.** Any area (except circular areas) that can be described by stating in sequence the geographical features of each corner. For example: A-6 corners junction of Highways 15 and 26 to Red River bridge to north end Whitney Canal to summit Eagle Mountain.
- **Center Point Method.** Same as maritime center point method.
- **Trackline Method.** Same as maritime trackline method.

d. **Coastal Searches.** Coastal searches also normally involve some combination of surface and air SRUs although the search effort is likely to involve mostly aircraft. As with inland searches, coastal searches almost always require repeated searches of the same area. Visual and/or electronic searches may be conducted using the search area designation methods commonly used in maritime and inland searches. Subsequent searches will probably focus exclusively on either maritime or inland area designation methods as more CSAR incident information becomes available.

e. **Additional Guidance.** Joint Pub 3-50 (COMDTINST M16120.5 (Series)), "National Search and Rescue Manual, Volume I, National Search and Rescue System," and Joint Pub 3-50.1 (COMDTINST M16120.6 (Series)), "National Search and Rescue

Manual, Volume II, Planning Handbook,” provide additional guidance and information for search methods and other SAR planning factors (such as terrain considerations and use of land-based SRUs) that may apply in certain combat situations.

4. Joint Combat Search and Rescue Recovery Methods

Joint CSAR forces may employ any one of a variety of procedures to recover isolated personnel. **The specific method of recovery employed will be dictated by the situation. A universally essential condition for a successful recovery is an accurate location of isolated personnel.** Personnel in nontactical or uncontested environments can expect to be recovered by conventional SAR procedures. Recovery methods employed in hostile environments could range from use of a CSARTF to unconventional assisted recovery through an E&R net. Regardless of the situation, **isolated personnel must be knowledgeable of recovery procedures and prepared to assist in their recovery to the greatest extent possible.** Several joint CSAR recovery methods are listed below.

a. **Single Unit.** This method employs a **single type of vehicle, normally a helicopter or flight of helicopters, to penetrate hostile or denied territory without support of a CSARTF.** This recovery method requires knowledge of the exact location of isolated personnel. The recovery vehicle’s **defense is accomplished by remaining undetected through the use of masking terrain, darkness, or adverse weather as cover rather than the use of firepower.** This mission should be planned and executed with communications silent or emission control as required. Other electronic emissions (such as radar, and transponders) should be kept to the minimum to accomplish the mission. Thorough preparation, including exhaustive navigation planning and threat analysis, is the key to success. **The single unit recovery is the preferred method of recovery,** but terrain, enemy activity, and lighting conditions may suggest using the CSARTF method.

b. **Combat Search and Rescue Task Force.** This method of recovery, used previously in Southeast Asia, has severe limitations when facing a significant air threat but **may be used where resources and**



The preferred method of recovery, if conditions permit, is the single unit recovery.

enemy activity allow. CSARTF elements can help the recovery vehicle by pinpointing the location and authenticating isolated personnel, protecting isolated personnel and the recovery vehicle from enemy activity, and providing navigation assistance and armed escort to the recovery vehicle. **The CSARTF is coordinated through premission planning and briefings with all participating elements.** Mission planners must consider operations security (OPSEC) when planning and executing the mission. Use secure

communications whenever possible. Exercise emissions control and communications silent procedures when required. Typical CSARTF elements are listed below.

- **Airborne Mission Commander.** The typical duties of the AMC are shown in Figure II-2.
- **On-Scene Commander.** The OSC is the individual designated to coordinate rescue efforts at the rescue site.

AIRBORNE MISSION COMMANDER DUTIES

The airborne mission commander (AMC) serves as an airborne extension of the executing component's rescue coordination center (RCC) and appoints, as necessary, the on-scene commander. Other typical duties of the AMC include the following:

- ✓ Coordinating the combat search and rescue radio nets
- ✓ Managing the flow of aircraft to and from the objective area
- ✓ Arranging aerial refueling for helicopters, as required
- ✓ Arranging ground refueling for helicopters that are not capable of aerial refueling
- ✓ Advising the RCC (or joint search and rescue center (JSRC)) of mission support requirements
- ✓ Coordinating appropriate no-fire zones in the objective area
- ✓ Advising combat search and rescue task force participants and the RCC (or JSRC) of mission progress

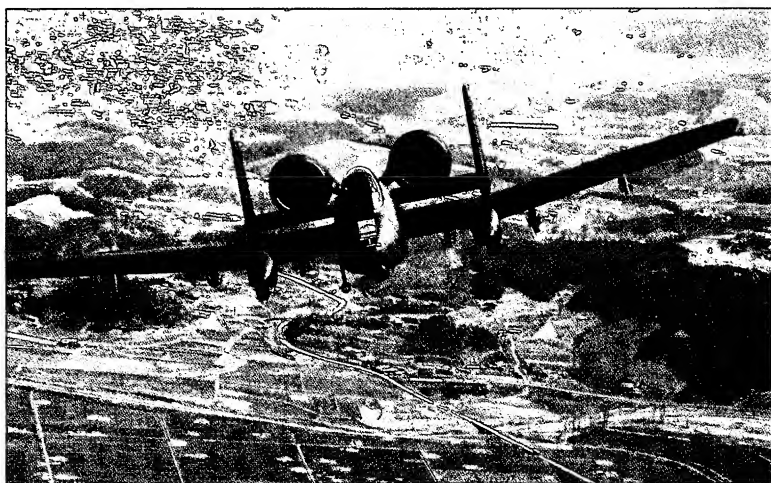
Figure II-2. Airborne Mission Commander Duties

Usually, an OSC is only designated when the tactical situation warrants formation and use of a CSARTF. The rescue escort (RESCORT) flight leader is most often designated as the OSC by the AMC. Before arrival of the AMC or RESCORT aircraft, a rescue combat air patrol (RESCAP) aircrewman functions as the OSC until other elements of the CSARTF arrive. Use of an OSC ensures a coordinated and timely recovery response in the often chaotic and hostile objective area.

- **Recovery Helicopters.** Usually, a **primary and a secondary helicopter are flown to the objective area.** The secondary helicopter should be prepared to assume the lead and accomplish the recovery should the primary helicopter abort the mission. Normally, recovery helicopters launch only when the location and authentication of isolated personnel have been verified and actual recovery is feasible.
- **Rescue Escort.** RESCORT aircraft are **tactical aircraft capable of operating close to the altitude, speed, and**

endurance regimes of recovery helicopters and are assigned primarily to provide protection for the helicopters from surface threats. Typical tasks of RESCORT aircraft include the following:

- Suppressing surface threats en route to and returning from the objective area.
- Assisting recovery helicopters in locating and authenticating isolated personnel.
- Determining the level of enemy activity in the objective area and suppressing surface threats to the CSARTF.
- Functioning as the OSC, when designated by the AMC or the RCC (or JSRC), and coordinating and controlling activities of all CSARTF elements in the objective area.
- **Rescue Combat Air Patrol.** The RESCAP forces are **counterair and electronic warfare aircraft** that may be assigned to protect the CSARTF from



Tactical aircraft operating in a rescue escort role are required to assist in recovery operations in high surface threat areas.

airborne and surface threats. Typical tasks of RESCAP aircraft include the following:

- Maintaining patrol over and protecting isolated personnel until other elements of the CSARTF arrive in the objective area.

- Assisting in locating isolated personnel.

- Assisting RESCORT aircraft in suppressing surface threats.

- Maintaining protection against and ensuring suppression of airborne threats to the CSARTF.

- Functioning as OSC until other elements of the CSARTF arrive in the objective area.

- **Support Aircraft.** Tankers, Airborne Battlefield Command and Control Center (ABCCC), AWACS, E-2, TR-1, and other aircraft provide vital support to the CSARTF. Availability of support aircraft is often the difference between success and failure of a CSAR operation.

c. Low-Visibility Options. The general concept of employing clandestine specialized teams and SOF in recovery operations is to **place isolated personnel in company with a highly trained unit as soon as possible and to move them to an area of friendly control.**

- Clandestine specialized teams and SOF are not normally assigned CSAR missions, particularly the search role. When tactical considerations and mission priorities warrant, the JFC may task these forces through the appropriate component commander.

- In some cases, isolated personnel may be placed in an indigenous E&R net or the SOF unit may organize an indigenous effort to search for and recover isolated personnel.

d. Evasion and Recovery. Guidance on E&R, including employment of clandestine specialized teams and SOF to conduct recovery of isolated personnel, may be found in Joint Pub 3-50.3, "National Search and Rescue Manual, Volume II, Planning Handbook."

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CHAPTER III

COMMAND, CONTROL, COORDINATION, AND COMMUNICATIONS

"Alert! Alert! Rescue helicopters needed immediately. Wounded soldiers in the jungle must be evacuated. Enemy closing in."

"Scramble call," Bien Hoa Air Base (1966)

1. Command Relationships

JFCs normally exercise command authority for CSAR either through a designated component commander whose RCC has been designated by the JFC to function also as the JSRC or through a designated JSRC Director, if the JSRC is part of the JFC staff. Use of

a designated JSRC facilitates planning and executing joint CSAR operations by providing the JFC the greatest latitude and flexibility for coordinating and executing joint, component, and unit CSAR responsibilities and activities. Typical joint CSAR command relationships diagrams are provided in Figures III-1, III-2, and III-3.

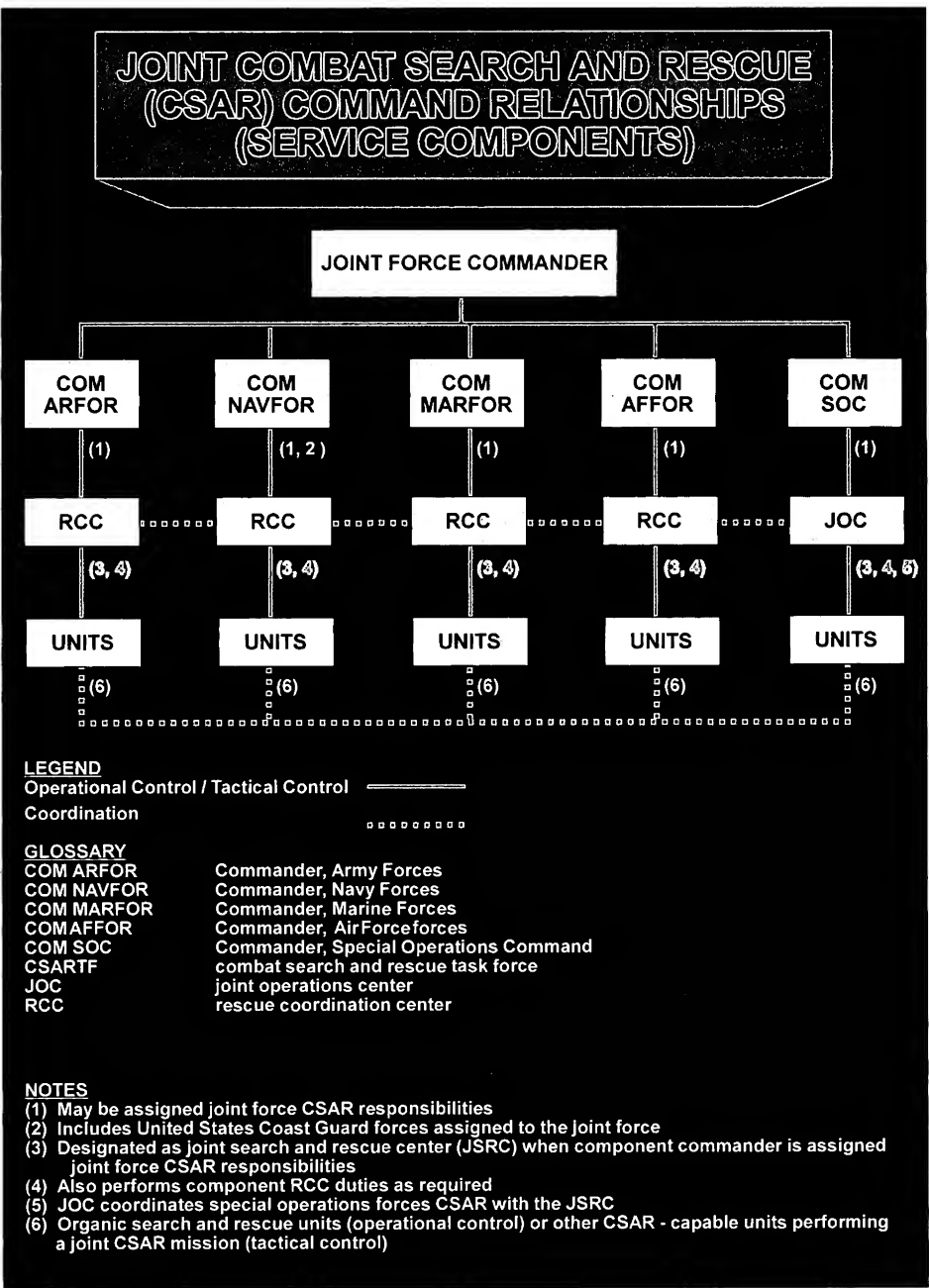
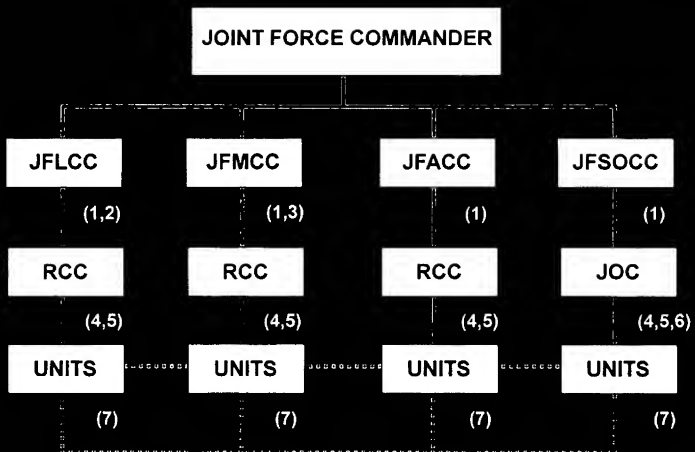


Figure III-1. Joint Combat Search and Rescue Command Relationships
(Service Components)

JOINT COMBAT SEARCH AND RESCUE COMMAND RELATIONSHIPS (FUNCTIONAL COMPONENTS)



LEGEND

Operational Control / Tactical Control

Coordination

GLOSSARY

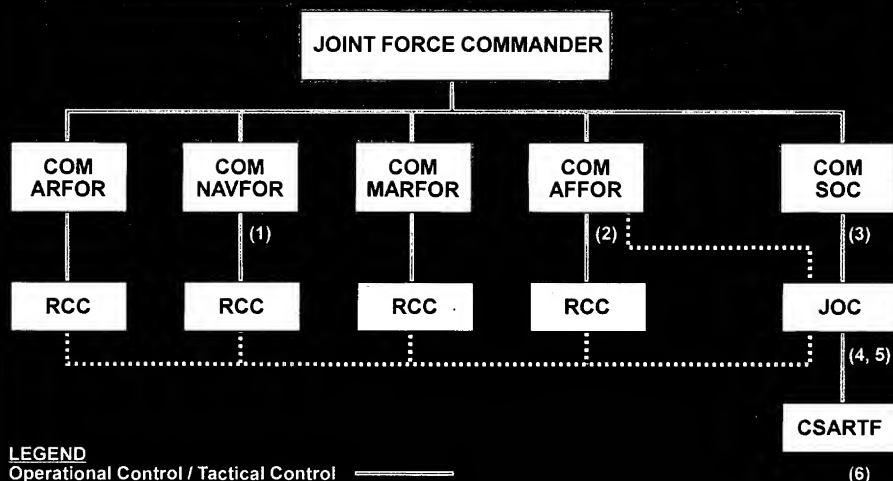
JFACC joint force air component commander
 JFLCC joint force land component commander
 JFMCC joint force maritime component commander
 JFSOCC joint force special operations component commander
 JOC joint operations center (special operations component)
 RCC rescue coordination center

NOTES

- (1) May be assigned joint force CSAR responsibilities
- (2) Includes Marine air-ground task force (MAGTF) (land operations)
- (3) Includes United States Coast Guard forces assigned to the joint force and MAGTF (maritime operations)
- (4) Designated as joint search and rescue center (JSRC) when component commander is assigned joint force CSAR responsibilities
- (5) Also performs component RCC duties as required
- (6) JOC coordinates special operations forces CSAR with JSRC
- (7) Organic search and rescue units (operational control) or other CSAR - capable units performing a joint CSAR mission (tactical control)

Figure III-2. Joint Combat Search and Rescue Command Relationships (Functional Components)

TYPICAL JOINT COMBAT SEARCH AND RESCUE (CSAR) COMMAND RELATIONSHIPS (SERVICE COMPONENTS) : **(COMMANDER SPECIAL OPERATIONS FORCES HAS BEEN ASSIGNED JOINT FORCE CSAR RESPONSIBILITIES)**



LEGEND

Operational Control / Tactical Control —————
 Coordination (6)

GLOSSARY

COM ARFOR Commander, Army Forces
 COM NAVFOR Commander, Navy Forces
 COM MARFOR Commander, Marine Forces
 COM AFFOR Commander, Air Force Forces
 COM SOC Commander, Special Operations Command
 CSARTF combat search and rescue task force
 JOC joint operations center
 RCC rescue coordination center

NOTES

- (1) Includes United States Coast Guard forces assigned to the joint force
- (2) Has been designated as JFACC
- (3) Has been assigned joint force combat search and rescue responsibilities
- (4) Has been designated as joint search and rescue commander
- (5) Also performs component RCC duties as required
- (6) CSARTF performing a joint combat search and rescue mission (tactical control)

Figure III-3. Typical Joint Combat Search and Rescue Command Relationships (Service Components): (Commander Special Operations Forces Has Been Assigned Joint Force CSAR Responsibilities)

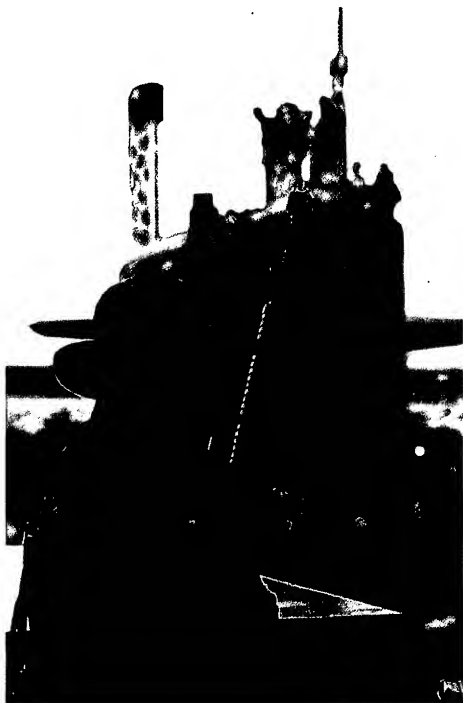
a. Combat Search and Rescue Mission Command Relationships

- **When components conduct CSAR missions with assigned forces in support of their own isolated personnel, these forces are under component operational control.**
- **When a component needs augmentation to complete a CSAR mission, the JSRC is notified.** Based on recommendations by the JSRC, the JFC may task one or more other components to assist. While tasked to augment, **augmenting forces should normally be under the tactical control (TACON) of the CSAR mission commander** of the component requesting augmentation.
- **When a component is unable to conduct a CSAR operation for their personnel, the JSRC is notified and, based on recommendations by the JSRC, the JFC may task another component to complete the CSAR mission. In this case, the component tasked to conduct the CSAR mission maintains operational control of its component forces.**
- **When a component is unable to conduct a CSAR operation for their personnel and there is no other component capable of completing the CSAR operation, the JFC may direct joint force components by mission type orders to provide specific CSAR capabilities to support joint CSAR operations.** Based upon these mission type orders, the component commanders make specific capabilities available. The JFC should determine the command relationship to be used by the designated component commander with joint CSAR responsibility when employing these forces in a joint CSAR operation.

Normally, the JFC should delegate TACON of those forces to the designated component commander. If TACON is delegated, component commanders relinquish TACON of CSAR forces made available to the designated component commander when these forces are committed to joint CSAR operations.

b. Joint Search and Rescue Center Authority. The JFC should grant authority to the JSRC commensurate with CSAR responsibilities assigned. For example, JFCs may exercise their authority to task component forces committed to conduct joint CSAR operations through the JSRC. If the JFC has tasked a component commander to designate the component RCC to function also as the JSRC, the JFC should give the necessary authority to that component commander, who subsequently may grant the necessary authority to the JSRC director. If the JSRC is serving as part of the JFC staff, the JFC should give the necessary authority to the JSRC director. Following are examples of types of authority the JFC may give to the designated component commander or to the JSRC:

- **The JFC may grant authority to the designated component commander or to the JSRC to task component commands to support CSAR missions of another component when that component needs assistance or cannot accomplish the mission.** The supporting component commanders should take such actions to fulfill the tasking as is within existing capabilities, consistent with priorities and requirements of other assigned tasks. In cases where these supporting component commanders have conflicts with assigned tasks that cannot be resolved, those commanders may address their concerns with the JFC for resolution.



Subsurface resources may be tasked by the JFC to conduct CSAR operation when compatible with mission requirements.

- **During joint operations, the JSRC is the focal point of all joint CSAR coordination.** The JSRC should have authority to conduct joint CSAR coordination to all levels of command.
- Authority to coordinate and deconflict support provided to component CSAR operations.
- Authority to develop and promulgate joint force CSAR SOPs.
- Authority to develop and promulgate joint force CSAR communications plans. These plans are included in SAR appendixes to the operations annexes of OPLANs and OPORDs and should be coordinated with the joint force command, control, communications, and computer (C4) systems directorate (J-6) for deconfliction.

- Authority to establish reporting requirements for the JSRC and component RCCs.
- Authority to monitor all CSAR operations prosecuted within the JFC's AOR/JOA.
- Authority to review CSAR and E&R appendixes to component OPLANs, CONPLANs, and OPORDs.
- Authority to establish operational interfaces with other joint force staff sections and elements as considered appropriate and necessary. These interfaces could include but are not limited to intelligence directorate (J-2), operations directorate (J-3), logistics directorate (J-4), strategic plans and policy directorate (J-5), C4 systems directorate (J-6), air operations supporting arms, PSYOP, and other sections and elements, as appropriate.
- Authority to establish coordination with CSAR agencies and forces from multinational forces, as appropriate.

c. Component Rescue Coordination Center Authority. Component RCCs also should be granted authority commensurate with CSAR responsibilities assigned. Component RCCs will vary in size, composition, and location from component to component but are usually a staff element of the air operations section. **Component commanders normally exercise their authority to task component forces committed to conduct CSAR operations through component CSAR controllers.** When a component RCC is not established, the component commander normally designates a representative on the operations staff to oversee component CSAR responsibilities. In addition to coordinating component forces committed to CSAR

operations, the component RCC normally also has authority to do the following:

- Develop and promulgate component CSAR SOPs.
- Develop and promulgate component CSAR communications plans. These plans are included in CSAR appendixes to the operations annexes of OPLANS and OPORDs.
- Establish CSAR reporting requirements for component units.
- Monitor all CSAR operations prosecuted by component forces.
- Establish operational interfaces with other component staff sections and elements as considered appropriate and necessary. These would include but not be limited to intelligence, logistics, plans, communications, supporting arms, PSYOP, and other sections and elements.

2. Mission Type Orders

When CSAR requirements exceed the capability of a unit or component to fulfill, the JFC may task another unit or component within the joint force with the CSAR mission. The JFC may give the

authority and responsibility for this tasking to the JSRC or the designated component commander operating the JSRC. **Use of mission type orders is the preferred method for tasking one component to conduct the CSAR mission for another component or to support another component's CSAR operation.** Use of mission type orders allows the commander(s) executing these supporting CSAR missions the greatest possible operational latitude and flexibility.

3. Joint Combat Search and Rescue Coordination

Coordination is the key element for successful prosecution of joint CSAR missions. Coordination should be both vertical and horizontal and should be conducted continuously during all phases of a CSAR operation. Principal nodes where coordination takes place and major functions of that coordination are described below.

a. **Within the Joint Search and Rescue Center.** Coordination functions within the JSRC include, but are not limited to, the following:

- Advising the JFC or designated component commander on CSAR incidents and requests.

RESCUE: A BASIC INSTINCT

The history of rescue is as old as the brotherhood of man.

No matter what era, area, or circumstance is involved, rescue has always been one of the great human interest stories. Be it a man trapped in a cave, a survivor drifting aimlessly on a life raft in the ocean, or a lone pilot lost and injured in the enemy-thick jungles of Vietnam, there is no saga quite as inspiring, as exhilarating or as dramatic as that of man risking serious injury or death itself to help his fellow man in trouble. Rescue is a compelling, all-encompassing human instinct. In crises people pull together as never before, often performing deeds far beyond their normal capacities when a life is in the balance. So it has always been and will always be. Such is the nature of man.

SOURCE: Taylor, L.B., Jr., That Others May Live, Dutton & Co. 1967.

- Making recommendations concerning CSAR priorities and capabilities.
- Keeping the JFC or designated component commander updated on ongoing CSAR efforts.
- Making the final joint staff recommendation to the JFC or designated component commander on CSAR requests.
- Making final joint staff recommendations to the JFC or designated component commander on redirecting resources to conduct CSAR missions.
- Coordinating CSAR information with other elements of the JSRC, such as representatives of the special operations component, the joint staff PSYOP officer, J-2, J-3, J-6, air operations, supporting arms, and medical representatives.

b. Between the Joint Search and Rescue Center and Components. The JSRC coordinates CSAR support requirements for those CSAR missions involving forces from more than one component or when forces from one component conduct CSAR missions in support of another component. The JSRC receives requests for CSAR support from the components and initiates action to locate and task CSAR-capable forces within the joint force as appropriate.

c. Between the Joint Search and Rescue Center and Component Rescue Coordination Centers. The JSRC coordinates CSAR operations as appropriate between the JSRC and the RCCs to prevent duplication of CSAR efforts, facilitate efficient exchange of CSAR information, and provide the most efficient use of CSAR-capable resources. **This coordination is particularly important when a CSAR incident occurs near the**

boundary between two component AOs. Each RCC should coordinate CSAR operations within its designated AO and in support of its own forces to the greatest extent possible.

d. Between the Joint Force and External Agencies. The JSRC coordinates CSAR operations as appropriate between the joint force and external agencies such as multinational forces and other US joint forces. Such coordination will facilitate timely exchange of CSAR information and any external mutual CSAR support either provided to or by the joint force.

e. Liaison Officers. Exchange of CSAR liaison officers assists in communications efforts and enhances understanding between components and commands, particularly during early phases of an operation when component RCCs may be forming or normal CSAR communications nets have yet to be established. **Exchange of CSAR liaison officers between the JSRC and multinational forces is critical to the success of CSAR operations in a multinational environment.**

4. Joint Combat Search and Rescue Communications

Communications play a major role in the normally short-notice and rapidly evolving dynamics associated with CSAR operations. Joint and component C4I planning should include potential CSAR requirements, to include Service and functional component C4I interoperability as it relates to communicating from air-to-air, air-to-surface, or surface-to-surface. **The primary form of CSAR communications will be verbal—by radio and/or landline in both secure and unsecure modes.** Every effort should be made to use secure communications in a hostile environment as the compromise of critical information could

easily jeopardize the entire CSAR effort, including the loss of scarce CSAR resources. JSRC and component RCC CSAR controllers should maintain an active, real-time, two-way dialogue during every phase of a CSAR mission. The JSRC and component RCCs should confirm all verbal communications using appropriate USMTFs.

a. **Voice Circuits.** Typical voice circuits required in a joint CSAR effort involving a CSARTF are shown in Figure III-4. A single unit recovery would require fewer voice circuits. **The number of voice circuits established to prosecute a CSAR mission should be kept to a minimum**, but backup circuits should be preplanned and available as necessary. Secure voice circuits should be used whenever possible.

b. **Authentication**

- **System.** Authentication of isolated personnel may be accomplished by several means, depending on the situation. **The principal method of authentication is by radio using unit authentication numbers, data from the isolated personnel's ISOPREP, or locally developed authentication codes.** This is most efficiently accomplished through use of the Downed Aviator Locator System or Personal Locator System (PLS) functions incorporated into recently acquired personal survival radios. Voice communications may still be a necessary alternative in some situations. Authentication can also be accomplished using visual signals or time on target requirements. For isolated personnel controlled in an E&R net, authentication may also include

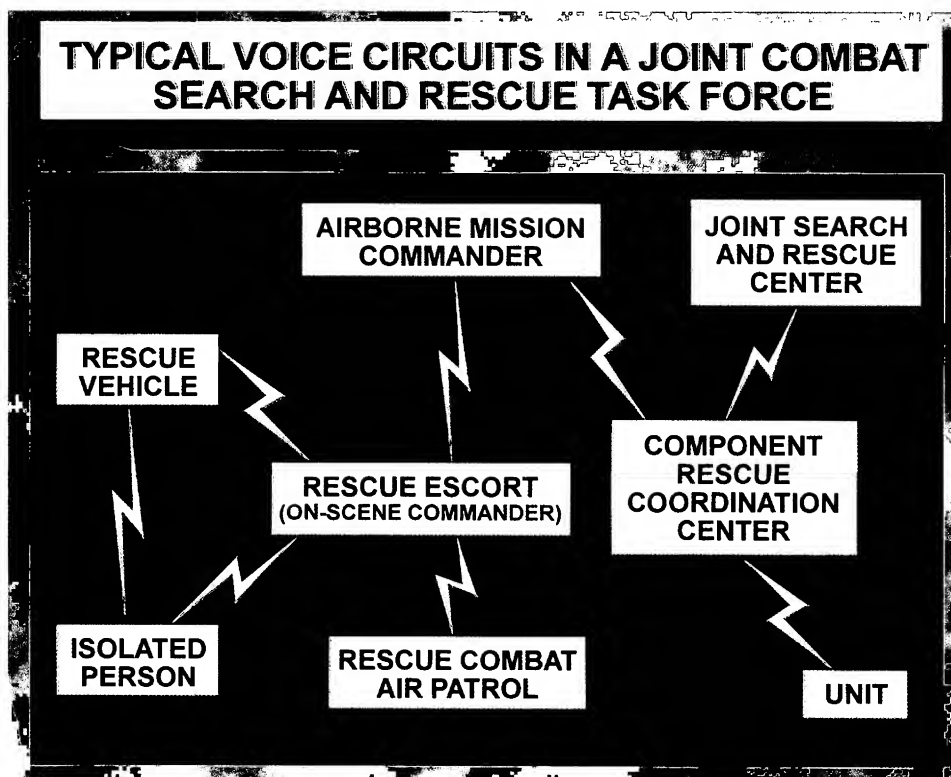


Figure III-4. Typical Voice Circuits in a Joint Combat Search and Rescue Task Force

fingerprints or physical characteristics.

• Unit Authentication. **Tactical ground and flying forces should be provided a unit authentication number consisting of four digits.** These numbers should be assigned to units down to and including company or squadron level. Personnel assigned or attached to these units should use these numbers for authentication purposes.

• Personal Authentication. **Personal authentication should be accomplished through use of the ISOPREP.** Responsibilities and detailed instructions concerning the preparation, maintenance, and employment of the ISOPREP are contained in Chapter I, "Responsibilities," and Appendix J, "Instructions for Isolated Personnel Report (DD Form 1833)."

• Local Authentication Codes. Local CSAR letters and colors may be developed. **These additional authentication systems should be passed by the originating unit to the component RCC and JSRC as appropriate.** Local authentication codes for long-term evaders should be kept on file with the parent unit and component RCC.

- **Isolated Personnel.** In combat, recovery of isolated personnel may depend on early authentication. **Normally, isolated personnel will not receive assistance until their identity has been authenticated.** An effective authentication system is essential to protect CSAR forces from enemy entrapment. To achieve this objective, authentication information should be used in a manner that maintains security and durability.

• Security. Authentication information should be kept from enemy forces because they could use this information

to deceive CSAR forces or deprive these forces of the ability to authenticate isolated personnel.

• Durability. **Authentication information should be used in a manner that allows CSAR forces to continue to authenticate isolated personnel over a long period of time.** A properly completed ISOPREP allows CSAR forces to authenticate isolated personnel many times, if necessary.

c. Message Traffic and Message Support

- **Message Traffic.** USMTFs are used to back up verbal communications that cross Service or functional component lines or are forwarded to joint commands and activities. Specific USMTFs are found in the Joint Pub 6-04.20 series. Samples are provided in Appendix K, "Selected US Message Text Formats for Combat Search and Rescue." Primary USMTFs for CSAR messages are as follows:

• Search and Rescue Incident Report. **The SARIR message is used to report a situation that may require a CSAR mission.** Normally, the parent unit of isolated personnel reports the incident. However, anyone observing a potential CSAR incident should initiate a voice report to be followed by a backup record message. Within Service component chains of command, unformatted or other designated message formats may be used up to the component RCC. The SARIR should contain the following minimum information: (1) Sea, air, or ground event leading to the CSAR incident; (2) Enemy activity, terrain, and weather in the CSAR incident locale; (3) Number of isolated personnel and their status; (4) Location of isolated personnel and objective area; (5) Unit and component CSAR resource available; (6) Designated areas that ma

affect the CSAR mission; (7) Communications capability of isolated personnel; (8) date-time group of incident and last sighting and/or contact with isolated personnel; and (9) Any other evidence that isolated personnel are still alive and evading capture.

•• **Search and Rescue Situation (SARSIT) Summary Report.** The SARSIT message coordinates, summarizes, or terminates joint CSAR operations. The SARSIT should normally be transmitted at least once daily from the component RCCs to the JSRC and forwarded as appropriate to the J-3 and JFC.

•• **Search and Rescue Request (SARREQ).** The SARREQ message requests forces to participate in a CSAR mission. This message normally is sent from the JSRC to component RCCs and any designated functional commanders to record arrangements made to employ resources from two or more components to prosecute a CSAR mission. The SARREQ should contain the following minimum information: (1) Lost (or suspected lost) ships, aircraft, or ground units. (2) Capabilities required from the various components to support a specific CSAR mission. (3) Coordinating instructions for resources supporting a specific CSAR mission. (4) Enemy activity that may affect a specific CSAR mission.

•• Other USMTFs that may be used in conjunction with planning, supporting, and prosecuting CSAR missions include the following: (1) Air allocation request; (2) Sortie allotment; (3) Air tasking order confirmation; (4) Request confirmation; (5) Air mission request status tasking; (6) Alert launch order; (7) Joint launch report; (8) In-flight report—voice only; (9) Airlift mission schedule; (10) Mission

report; (11) Intelligence report (INTREP); (12) Intelligence summary (INTSUM); (13) Daily intelligence summary (DISUM); (14) Designated area message; and (15) Acknowledge message.

- **Message Support.** The JSRC and component RCCs should have timely message support. **Most CSAR voice communications are eventually backed up by message communications.** In addition, much of the intelligence required to plan and conduct CSAR missions is provided by message. Also, CSAR mission taskings and status reports normally are transmitted by message.

d. **Communications Equipment.** The JSRC and component RCCs require dedicated communications equipment to perform the extensive coordination required in most CSAR operations. **Communications equipment required by the JSRC and component RCCs include radios (including satellite communications [SATCOM]) and landlines.** If the joint force and/or component headquarters are employing a computer network to communicate between staff sections, the JSRC and component RCCs should also have this capability.

- **Radio.** **Radio communications are the best means of sending and receiving information and instructions during CSAR operations.** The possibility of enemy monitoring requires that **secure radio communications equipment be provided to the JSRC, component RCCs, and participating CSAR units whenever possible.** The requirement for JSRC and component RCC CSAR coordinators to maintain an active two-way dialogue during every phase of a CSAR mission also dictates the need for dedicated or planned backup radios for the JSRC and component RCCs.

SATCOM can provide support when CSAR operations extend beyond the range of terrestrially based communications systems.

- **Landlines.** When geographic and tactical conditions permit, **landlines should be established between the JSRC and component RCCs.** Landlines permit the use of essential voice communications while lessening the threat of enemy monitoring considerably.
- **Computer Networks.** A **local-area network (LAN)** established within the joint force or component headquarters and a **wide-area network (WAN)** established between joint force and component headquarters will facilitate the flow of information between staff

sections in the headquarters. The JSRC and component RCCs should have access to these LANs and WANs to expeditiously receive essential information and to properly coordinate CSAR mission requirements with the staffs.

- **Classified-Capable Facsimile Machine.** A classified-capable facsimile machine (i.e., secure FAX) will facilitate the timely transmission of CSAR-related documents such as ISOPREPs between the component RCCs and the JSRC.
- ### 5. Interoperability Requirements

Details of CSAR interoperability requirements are provided in Appendix G, "Combat Search and Rescue Interoperability Requirements."

CHAPTER IV

JOINT COMBAT SEARCH AND RESCUE PLANNING

"He that outlives this day, and comes safe home, will stand a tip-toe when this day is named."

William Shakespeare, Henry V

1. Concurrent Operational Planning

Joint CSAR planning should be conducted on a routine basis by established JSRCs, in conjunction with development of OPLANs and OPORDs. **When a joint task force is formed and no JSRC has been established, joint CSAR planning should begin as soon as possible** after the joint task force deploys to or is formed within an AOR/JOA. Joint Pub 5-03.2, "Joint Operation Planning and Execution System, Vol II: (Planning and Execution Formats and Guidance,)" provides format guidance in preparing OPLANs. Appendix 6 to Annex C of existing OPLANs will provide CSAR information and guidance concerning an AOR/JOA. **The joint force should develop a complete CSAR posture by using an orderly, logical planning process that is fully complementary to ongoing mission-oriented operation planning.** This concurrent planning approach ensures a CSAR concept of operations and support that details specific responsibilities and authority. Joint and supporting CSAR plans should be designed with flexibility to employ all CSAR-capable resources in the most efficient and effective manner. In addition, all CSAR planning within the joint force should take into account the CSAR guidance established by higher authority, any planned or ongoing operations that may assist or otherwise support a CSAR mission, and the requirement to conduct highly detailed final CSAR mission planning. **Other factors that may play an important role in CSAR planning are airspace deconfliction, supporting arms**

requirements and coordination, military deception, and OPSEC. CSAR guidance is discussed below.

a. **Theater Guidance.** The geographic combatant commander develops and promulgates theater CSAR guidance that provides broad general direction on the level of effort and the conditions under which additional resources may be committed to CSAR. Theater CSAR guidance should integrate evasion and other forms of personnel recovery with the CSAR concept of operations. **Subordinate joint force and component commanders normally should implement the theater guidance** by establishing the following:

- Basic go or no-go criteria that indicate the conditions and circumstances under which commanders are willing to risk additional assets to conduct a CSAR mission.
- Conditions that require use of CSAR-capable resources external to the joint force or component.

b. **Planned or Ongoing Operations.** Planned or ongoing operations often contribute to a CSAR mission by diverting enemy activity from the area of the CSAR incident or by providing on-scene resources that may either complement a CSAR effort or conduct the rescue. Examples include aircraft returning with unexpended ordnance, airborne command and control (C2) platforms, and surface supporting arms within range of the CSAR objective.

c. **Detailed Planning.** Highly detailed planning of a CSAR mission is critical, particularly when enemy activity, long distances, terrain, and adverse weather conditions are factors.

d. **Airspace Deconfliction.** Airspace deconfliction may play an important role in planning a concurrent CSAR mission. Specific joint guidance on airspace deconfliction is contained in Joint Pub 3-52, "Doctrine for Joint Airspace Control in the Combat Zone."

e. **Supporting Arms.** The development of supporting arms requirements and subsequent supporting arms coordination are often factors in CSAR mission planning. Specific joint guidance on supporting arms is contained in Joint Pub 3-09, "Doctrine for Joint Fire Support."

oriented operation planning or as a corollary planning effort when CSAR-capable resources of one joint force or component are tasked to provide CSAR support to another joint force or component. Precautionary CSAR options include the following:

a. **Lifeguard**

- **Submarines and surface vessels may be employed for lifeguard purposes when:**

- The mission indicates a need for waterborne precautionary CSAR assistance along the ingress or egress route.

- This CSAR function is compatible with or becomes the primary assigned mission of the submarine or surface vessel.

THE FIRST AERIAL RESCUE

The first known aerial rescue occurred in 1870, thirty-three years before the Wright Brothers flew their plane at Kitty Hawk, North Carolina. It happened in Paris during the Franco-Prussian War. To escape the bombardment of Bismarck's guns, the French used observation balloons to evacuate by airlift 160 wounded soldiers who otherwise would have died or been captured by on charging troops. Since that time, although the tactics have been refined and the means of transportation revolutionized, the same principle of moving injured men out of harms way remains a key consideration in modern day warfare.

SOURCE: Taylor, L.B. Jr., *That Others May Live*, Dutton & Co., 1967.

2. Precautionary Combat Search and Rescue

Precautionary CSAR is the planning and pre-positioning of aircraft, ships, or ground forces and facilities before an operation to provide CSAR assistance if needed. The planning of precautionary CSAR is usually done by plans personnel with CSAR expertise and background on the J-3 staff or in the JSRC and RCC. Precautionary CSAR planning may be conducted concurrently with mission-

- Aircraft providing cover for a lifeguard vessel should establish contact immediately upon arriving on station and then, when practical, search the area around the lifeguard's position for enemy vessels.
- An aircraft commander who wants to establish communications with an unknown submarine or surface ship in connection with CSAR should use the vessel voice call "Lifeguard."



Surface vessel performing a precautionary CSAR with helicopter assistance.

- A lifeguard vessel commander who wants to establish communications with an unknown CSAR aircraft should use the voice call "Rescue."

b. **Duckbutts.** Duckbutts are aircraft positioned to provide precautionary CSAR assistance, support deployment of single-engine aircraft, or meet other specialized situations. Commanders are responsible for coordinating duckbutt support with the appropriate CSAR activity.

c. **Airborne Orbit.** Suitable fixed-wing aircraft, and helicopters when practicable, may be tasked to provide CSAR airborne orbit or alert in support of operations. These aircraft should monitor strike and operating frequencies and may function as the airborne mission command platform to coordinate CSAR operations. When not designated as the airborne mission command platform, supporting CSAR aircraft should establish radio contact with the AMC immediately upon departure from their home stations.

d. **Strip Alert.** Suitable combat aircraft may be fueled, armed, and positioned for

rapid launch in support of CSAR operations. **Strip alert can be provided from main operating bases or with aircraft pre-positioned at forward operating locations near combat operations.**

3. Threat Analysis

A CSAR mission may involve coordinated operations using a combination of airborne, surface, and subsurface resources. **Threats should be evaluated carefully by the component RCC or JSRC to determine the appropriate rescue vehicle or mode to be used.**

a. **Threat Assessment Guidelines.** The threat to CSAR forces will vary with weapon systems, as well as employment doctrine and tactics of the enemy. **Development of standardized joint force CSAR threat assessment guidelines, based on known and evolving threat intelligence, will assist and hasten JSRC or RCC planning and decision making process.** Information regarding threat intelligence requirements is contained in Chapter V, "Intelligence Requirements."

b. **Threat Map.** Component RCCs and JSRCs should develop and use a **threat map** that depicts the following:

- **Radar sites** because of their ability to detect CSAR forces, intercept communications, and possibly direct hostile forces to the vicinity of isolated personnel.
- **Threats to primary rescue vehicles such as helicopters**, including antiaircraft artillery (AAA), man-portable air defense systems, small-arms fire from ground forces, and armed enemy helicopters and fixed-wing aircraft. Because these threats are usually optically or electro-optically sighted, they will be affected by time of day, weather, terrain, and aircraft altitude and speed. However, the proliferation of radar-guided AAA can negate the masking effects of weather and darkness. Therefore, known or suspected sites should be avoided at all times.
- **Location of orbits for support aircraft such as electronic warfare and airborne C2 platforms** that are often required for CSAR missions. Because these assets are normally employed in a standoff role, range and altitude capabilities of threat systems will affect the usefulness of these support platforms.
- **Data concerning enemy weapons and troop deployments** should be plotted on the threat map with terrain and weapon ranges denoted. This map will provide CSAR mission planners with detailed threat information to optimally plan ingress and egress routes for rescue vehicles with respect to specific enemy weapon systems and surface forces.

4. Climate and Weather Information

See Figure IV-1.

Climate and weather information, including temperature, precipitation, humidity, visibility at ground level, predicted winds, fog, cloud cover, radio frequency propagation, and other hazards to survival and recovery, will have a great effect on planning and execution of search and

CLIMATE, WEATHER, AND ASTRONOMICAL CONDITIONS AFFECTING SEARCH AND RESCUE

- ☐ Temperature
- ☐ Precipitation
- ☐ Humidity
- ☐ Visibility at ground level
- ☐ Predicted winds
- ☐ Fog
- ☐ Cloud cover
- ☐ Radio frequency propagation
- ☐ Sunrise
- ☐ Sunset
- ☐ Moonrise
- ☐ Phases of the moon
- ☐ Predicted ambient light
- ☐ Hydrographic data

Figure IV-1. Climate, Weather, and Astronomical Conditions Affecting Search and Rescue

recovery of isolated personnel. This information particularly will affect timing and tempo of CSAR operations.

5. Astronomical Conditions

Astronomical conditions, including sunrise, sunset, moonrise, phases of the moon, predicted ambient light, and hydrographic data, **affect CSAR operations much the same as weather information** and also play an important role in timing and tempo of CSAR operations.

6. Operational Constraints

Typical operational constraints that pertain to joint CSAR operations include **a limited capability utilizing manned airborne assets to conduct the search portion of CSAR in a medium-to-high threat environment, a scarcity of dedicated CSAR resources in Service forces, and shortages of trained CSAR coordinators** to staff JSRCs and component RCCs.

a. **Sophisticated Weapons.** **The increasingly sophisticated weapons**, especially air defense weapons, that are available to military forces worldwide, and in some cases insurgents and terrorists, **make extended aerial searches by manned aircraft for isolated personnel in enemy-held territory highly prohibitive.** In many cases a traditional aerial search cannot be conducted. Electronic searches or monitoring for radio and beacon transmissions by standoff airborne platforms, unmanned aerial vehicles, tactical aircraft engaged in ongoing air operations, and/or satellites should be considered and planned as appropriate.

b. **Organic Combat Search and Rescue Capability.** Deployed Service forces may have very little organic CSAR capability but may be tasked to provide certain CSAR-capable resources in support of another

Service force or as part of a CSARTF formed for a specific CSAR mission. **Such assignments should not interfere with a unit or component primary mission and should be tasked by appropriate authority, normally a JFC.**

c. **Assignment of Combat Search and Rescue Controllers.** JFCs and component commanders should ensure that **the most capable personnel available are assigned as CSAR controllers.** Guidance regarding the staffing of JSRCs and component RCCs is contained in Chapter VI, "Support Requirements."

7. Decision Making

Offensive and/or defensive combat operations take precedence over CSAR operations. CSAR operations are subject to cost and benefit considerations and threat analysis in the same manner as any other military operation. **The benefit to be gained from a CSAR operation should equal or outweigh the cost** (actual or potential) **associated with executing the operation.** CSAR operations should not unduly risk isolating additional personnel, preclude execution of higher priority missions, routinely expose certain unique assets to extremely high risk, divert critically needed forces from ongoing operations, or allow the overall military situation to deteriorate. Regardless of the situation, **commanders must balance the value of retrieving isolated personnel against potential costs.** The psychological impact of the effort on remaining personnel should be weighed against the risk to CSAR-capable resources and the effect of diverting resources from the ongoing offensive and/or defensive combat effort. Commanders at all levels should evaluate these factors before ordering or authorizing a CSAR effort. Development of a standing joint force CSAR threat decision matrix tailored to the current threat analysis

will assist in this decision effort. Figure IV-2 provides a decision flow chart to assist further in this evaluation.

8. Joint Combat Search and Rescue Planning Checklist

Figure IV-3 provides a checklist for joint CSAR mission planning. Service forces and units conducting CSAR missions should

develop comprehensive and highly detailed mission checklists. A good example of such a checklist is the "Final Mission Planning Review Checklist" in Chapter 9 of Navy Supplement to NWP 19-2 (Rev. A), "Combat Search and Rescue Manual."

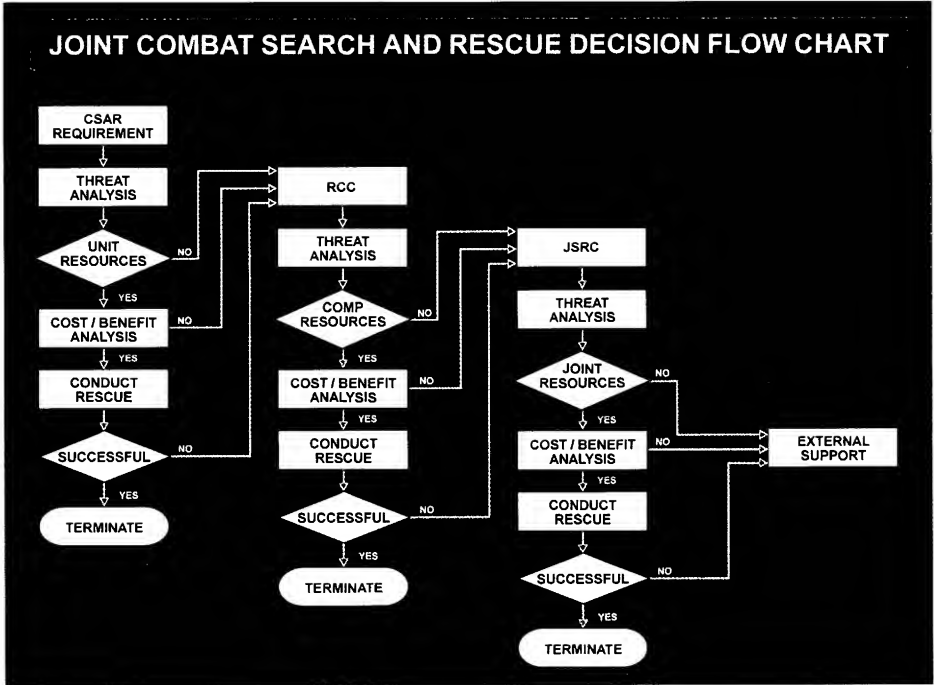


Figure IV-2. Joint Combat Search and Rescue Decision Flow Chart

Joint Combat Search and Rescue Planning

- I: _____: DTG NOTIFIED: _____
- II: _____: PRE-MISSION:
- _____A. RECORD EVENT ON APPROPRIATE INCIDENT FORM
 - _____B. DETERMINE CSAR PLAN OF ACTION
 - _____C. COMPLETE CSAR WORKSHEET:
 - _____1. OBTAIN CURRENT INTEL BRIEF
 - _____2. OBTAIN ISOPREP, AUTHENTICATION DATA, AND EPA
 - _____3. DETERMINE THREAT LEVEL
 - _____4. OBTAIN WEATHER BRIEF
 - _____5. STUDY TERRAIN/OBTAIN SEA CONDITIONS
 - _____6. DETERMINE SURVIVAL EQUIPMENT
 - _____7. DETERMINE NBC CONTAMINATION
 - _____8. DETERMINE MEDICAL STATUS
 - _____9. SPECIAL CONSIDERATIONS
 - _____D. COMPLETE CSAR PLANNING
 - _____1. CSAR PLAN (FORCES, TIMING, LOCATIONS)
 - _____2. COMM PLAN/FLIGHT FOLLOWING INCLUDING BACKUPS
 - _____3. RESCUE FORCES INFORMED
 - _____4. SUPPORT FORCES REQUESTED (AS REQUESTED)
 - _____5. ON-SCENE COMMANDER APPOINTED/NOTIFIED
 - _____E. COORDINATION COMPLETE WITH ALL CSAR FORCES
- III: _____: MISSION EXECUTION/LAUNCH PROGRESS
- _____A. MONITOR MISSION PROGRESS
 - _____1. START TIMES
 - _____2. KEEP COMPONENT RCC/JSRC ADVISED OF ACTIONS
 - _____3. ARRIVAL TIMES AT SCENE
 - _____B. ARRANGE FOR TRANSPORT OF INJURED (AS REQUIRED)
 - _____C. OBTAIN ADDITIONAL CSAR FORCES/SUPPORT (AS REQUIRED)
 - _____D. COMPLETE REPORTS (AS REQUIRED)
- IV: _____: CLOSING ACTIONS:
- _____A. RESCUE PERSONNEL DEBRIEFED
 - _____B. INTEL DEBRIEFED (AS REQUIRED)
 - _____C. COMPONENT RCC/JSRC NOTIFIED OF MISSION RESULTS
 - _____D. RESCUED PERSONNEL STATUS CONFIRMED
 - _____E. PAPERWORK COMPLETED

Figure IV-3. Joint Combat Search and Rescue Planning Checklist

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CHAPTER V

INTELLIGENCE REQUIREMENTS

"No study is possible on the battlefield; one does there simply what one can in order to apply what one knows ... Therefore, in order to do even a little, one has already to know a great deal and know it well."

Ferdinand Foch, Precepts (1919)

1. Current Intelligence

Current intelligence plays a vital role in the planning and conduct of all CSAR operations. **The enemy threat will have the greatest impact on search criteria and the method**

of recovery to be used. As each CSAR incident develops, JSRC and component RCC personnel should continually update their intelligence data to determine if changes in CSAR plans and ongoing CSAR operations are required. As shown in Figure V-1 specific

INTELLIGENCE ESTIMATES REQUIRED TO PLAN AND CONDUCT COMBAT SEARCH AND RESCUE MISSIONS

- ✕ Enemy Policy, Practices, and Intentions
- ✕ Location, Strength, Capabilities, and Activities of Enemy Units
- ✕ Enemy Early Warning Systems
- ✕ Enemy Air Defense Units
- ✕ Current Enemy Air Order of Battle
- ✕ Current Enemy Ground Order of Battle
- ✕ Current Enemy Naval Order of Battle
- ✕ Attitude of the Populace
- ✕ Selected Areas for Evasion, Contact Points, Identification Codes, and Designated Helicopter Landing Zones
- ✕ Terrain Information and Analysis

Figure V-1. Intelligence Estimates Required to Plan and Conduct Combat Search and Rescue Missions

intelligence estimates (items or information) required to plan and conduct CSAR missions include the following:

a. Enemy Policy, Practices, and Intentions. Information concerning enemy policy, practices, and intentions is extremely useful for (and in many cases critical to) planning CSAR missions, building training programs, and allocating resources to support CSAR operations.

b. Location, Strength, Capabilities, and Activities of Enemy Units. Information concerning location, strength, capabilities, and activities of enemy units that could affect operations in the objective area, adjacent areas, and along lines of communications and infiltration and exfiltration routes is particularly critical in the search and recovery phases of a CSAR operation. This information also will play a significant role when isolated personnel must evade or escape to reach specific selected areas for evasion (SAFEs) or designated recovery points.

c. Enemy Early Warning Systems. Information concerning identification and capabilities of enemy early warning systems will have a great impact on the early planning of a CSAR operation. Such information will determine the feasibility of aerial searches and also affect decisions regarding the recovery method to be used.

d. Enemy Air Defense Units. Information concerning location, capabilities, and tactics of enemy air defense units is the most critical for search and recovery planning involving use of airborne platforms. Near-real-time information about operational status and locations of enemy air defense sites and units may be available from friendly intelligence sources. This particular data often may be used to determine the overall feasibility of conducting a CSAR operation.

e. Current Enemy Air Order of Battle. Information concerning the current enemy air order of battle, including capabilities against helicopters, is required early in the planning phase of a CSAR operation. Basic decisions regarding CSAR search and recovery options and composition of a CSARTF will require this information in as much detail as possible.

f. Current Enemy Ground Order of Battle. Information concerning the current enemy ground order of battle, including organic air defense capabilities and deployment tactics used in searching for downed aviators, is vital when isolated personnel cannot be recovered quickly from the objective area or must evade significant distances to specific SAFEs or designated recovery points.

g. Current Enemy Naval Order of Battle. Information concerning the enemy naval order of battle, to include location, strength, and capability to threaten CSAR missions, is important when CSAR operations take place in a maritime environment.

h. Attitude of the Populace. Information concerning attitude of the populace of the objective area toward isolated personnel, to include susceptibility to enemy pressure to provide information about or assist in the search for isolated personnel, will be required during the planning phase of a CSAR operation. This information will affect selection of both search and recovery methods.

i. Selected Areas for Evasion, Contact Points, Identification Codes, and Designated Helicopter Landing Zones. Information concerning current SAFEs, contact points, identification codes, and designated helicopter landing zones that can be used in a given objective area is particularly vital when isolated personnel cannot be

recovered quickly or must evade within or from the objective area to designated recovery points.

are aware of any special needs required for developing courses of action for CSAR operations.

j. Terrain Information and Analysis.

Information concerning terrain and terrain analysis, to include observation and fields of fire, cover and concealment, obstacles, key terrain, and avenues of approach (both air and surface), will reduce uncertainties regarding

a. Supporting Intelligence Organizations.

Supporting intelligence organizations, particularly the theater JIC and/or JTF JISE, should be brought into CSAR operations planning during the early stages to ensure intelligence staffs, collection managers, and



Accurate and timely intelligence is best obtained by debriefing recovered survivors. Here, a 10-day Korean War evader, SFC Miller recounts his experience with an intelligence debriefing officer.

the effects of natural and manmade terrain on CSAR operations. This information is an essential factor in both air and surface recovery operation planning.

2. Obtaining Current Intelligence

To obtain current intelligence, the JSRC, component RCCs, and CSAR-capable units should continually review INTREPs, DISUMs, DISUMs, and any other intelligence information available. Intelligence information pertinent to CSAR operations should be displayed on situation maps that are readily available to CSAR operations. The JSRC, component RCCs, and CSAR-capable units should ensure that intelligence officers at all levels of command

all-source watch teams retain a clear understanding of friendly objectives, intent, and plans. There should also be a specific effort to **keep supporting intelligence organizations fully informed during the execution of joint CSAR operations** so they may understand the developing situation, provide timely technical advice, identify safe pickup points, and provide appropriate threat warning to CSAR forces.

b. Pertinent Threat Intelligence. All pertinent threat intelligence should be quickly passed to units conducting or tasked to conduct CSAR operations. **Rapid and accurate channeling of this information will significantly enhance final CSAR mission planning** and contribute to the overall likelihood of success of such missions.

c. **Dedicated Intelligence Support.** Although not always feasible or practicable, **dedicated CSAR units nonetheless should be provided dedicated intelligence support**, to the greatest extent possible, to facilitate mission planning and mission launch decision making.

3. Automated Data Processing (ADP) Intelligence Systems

a. **Intelligence Systems.** ADP intelligence systems that provide connectivity with the JSRC, component RCCs, and CSAR-capable units **are needed for time-sensitive imagery and intelligence data support.**

b. **Stand-Alone Analysis.** ADP also allows deliberate, stand-alone analysis of

weather and terrain. For example, planners can use personal computers to process and analyze digitized terrain elevation data and land satellite information to produce perspective views of terrain, vegetation cover, and land use.

4. National Intelligence Capabilities

JFCs should be aware of the **national intelligence capabilities and support available that they can request, norm through the theater JIC**, to aid the CSAR planning and decision-making process. See Joint Pub 2-0, "Joint Doctrine for Intelligence Support to Operations," and Joint Pub 2-01, "Joint Intelligence Support to Operations," for detailed information.

CHAPTER VI

SUPPORT REQUIREMENTS

"An optimum system is one where all of the parts work better because of the other parts. In broken systems, parts get work done in spite of the other parts."

Anonymous

1. Personnel

a. **Staffing.** Subparagraphs 2b and 3 of Chapter I, "Responsibilities," describe how the JFC establishes a JSRC and seeks to ensure **the JSRC is equitably staffed by trained personnel drawn from each joint force component, including the USCG when appropriate.** Joint staffing of the JSRC accomplishes the following purposes:

- Facilitates timely coordination of inter-Service and functional component CSAR requirements.
- Provides quick access to information relative to specific Service and functional component CSAR or CSAR-capable resources and operational concepts.
- Fosters component interest and participation in the overall joint CSAR effort.
- Spreads additional personnel support requirements throughout the joint force.

b. Training

- **Personnel** assigned to the JSRC and component RCCs **should arrive trained**

in planning, coordinating, and controlling CSAR missions at the command level assigned. During combat operations this training can be accomplished as OJT as a last resort. As stated in subparagraph 6c of Chapter IV, "Joint Combat Search and Rescue Planning," JFCs and component commanders should ensure that the most capable personnel available are assigned to these key CSAR positions. **Highly trained JSRC and RCC staffs may be the difference between success and failure in the time-sensitive and highly charged environment of a CSAR incident.**

- Personnel should also be **knowledgeable about their own Service's CSAR capabilities** within the joint force, including any related Service-unique concepts and doctrines such as the Marine Corps' tactical recovery of aircraft and personnel (TRAP).

c. **Organization.** A typical JSRC organizational chart is provided in Figure VI-1. Grades and numbers of personnel staffing the JSRC will vary based on the size of the joint force involved.

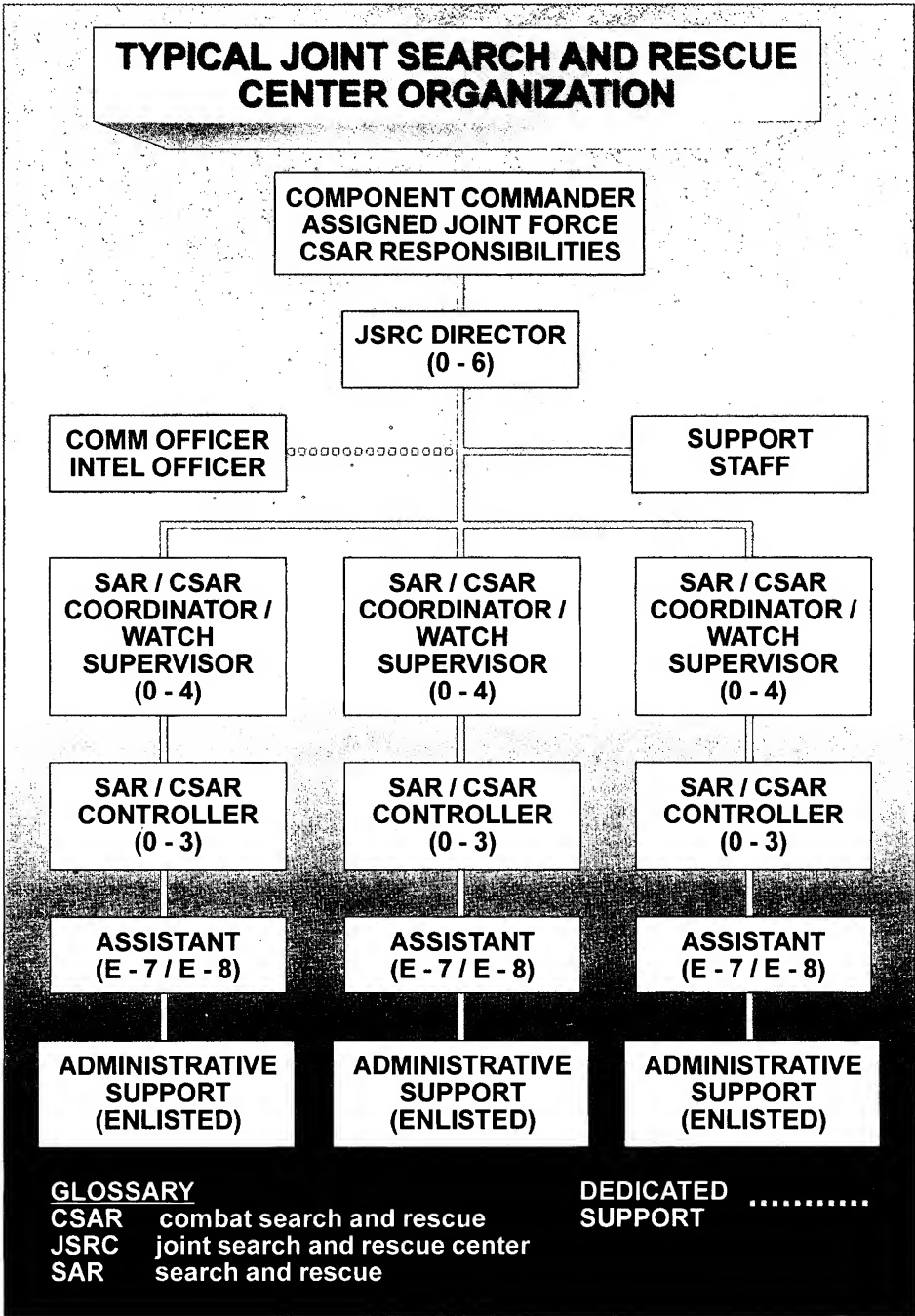


Figure VI-1. Typical Joint Search and Rescue Center Organization

2. Facility and Operating Space

Working areas or operating spaces should be made available to the JSRC and component RCCs. The often hectic and always busy working environment in the JSRC or component RCC during the planning and/or execution of CSAR operations requires dedicated areas as free from outside interference and undue interruptions as

possible. When CSAR planning and/or execution are not ongoing, essential training for JSRC and component RCC CSAR coordinators and supporting personnel normally is conducted. Failure to set aside dedicated working spaces for the JSRC and component RCCs seriously degrades the overall CSAR effort. Layout of a typical JSRC or component RCC is provided in Figure VI-2.

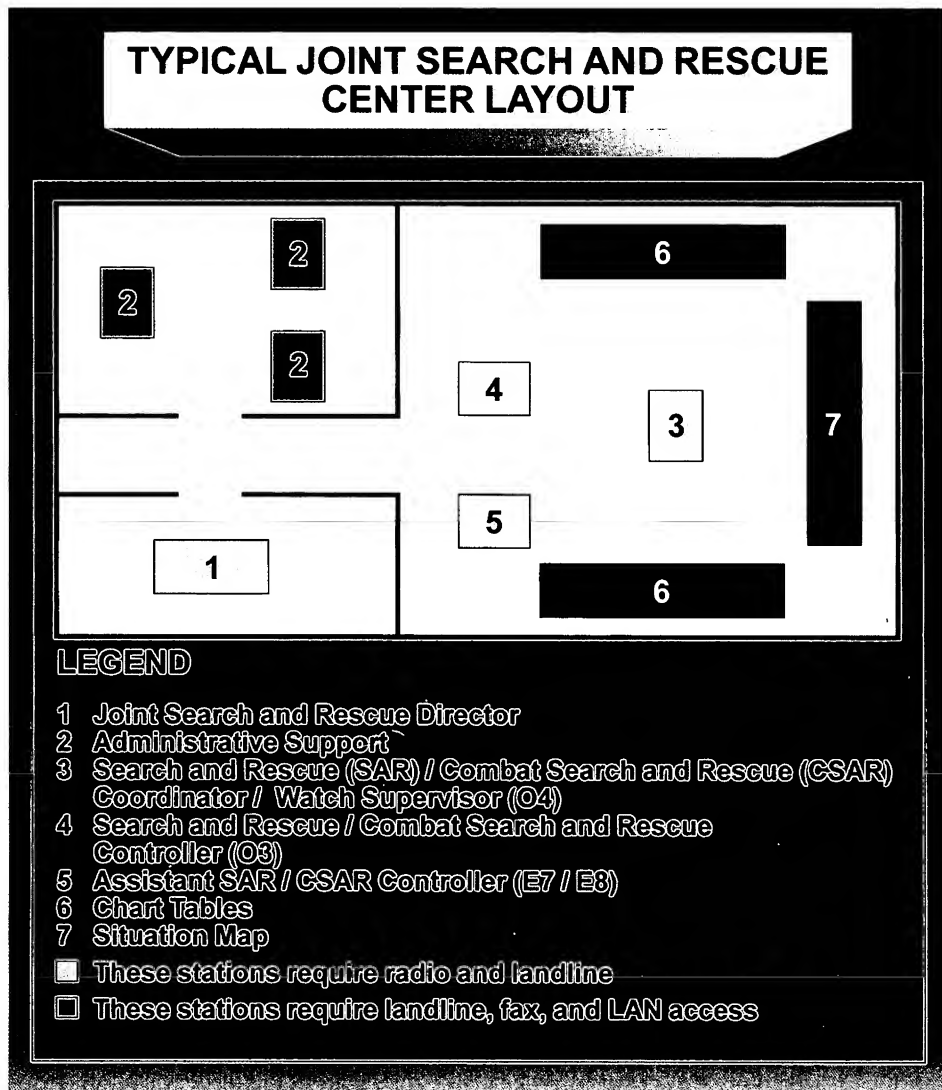


Figure VI-2. Typical Joint Search and Rescue Layout

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APPENDIX A

US ARMY COMBAT SEARCH AND RESCUE CAPABILITIES

1. Resources

a. The Army does not have dedicated CSAR units or aircraft; however, CSAR is a secondary mission for Army aviation, medical evacuation (MEDEVAC) units, and watercraft units. Additionally, ground maneuver units could be assigned to accomplish CSAR operations. The MEDEVAC units are being equipped with PLSs and can conduct CSAR operations in addition to MEDEVAC operations. MEDEVAC operations should not be considered CSAR and normally would not be of concern to the Army component RCC. MEDEVAC units are equipped and trained in air crash rescue support (less fire suppression), extraction of personnel from crashed aircraft, emergency aid at the crash site, and en route treatment during MEDEVAC. When MEDEVAC aircraft are used for recovery of isolated personnel in a semipermissive or nonpermissive operational environment, adequate protection must be provided. Because of insufficient quantities of rescue equipment, CSAR missions are secondary missions for helicopter units and other Army units tasked by the JFC. The following rescue equipment is organic to MEDEVAC aircraft:

- Rescue hoist.
- Sked litter.
- Crash rescue set.
- Medical equipment set, air ambulance.

b. All Army watercraft units are multimission resources that can be considered potential CSAR resources. Rescue missions by Army watercraft in a combat environment are limited to their AO.

They have limited weaponry and combat survivability.

c. Army resources currently available for the secondary mission of CSAR are:

- MEDEVAC units; rescue only, mission permitting, threat dependent.
- All helicopter units.
- Long-range surveillance units (LRSUs), mission permitting.
- All watercraft units.
- Available maneuver forces.

2. Responsibilities

a. Army forces deployed to a theater of operations are expected to be capable of conducting self-supporting CSAR operations.

b. The commander of a deployed Army force is responsible for the conduct of CSAR operations involving that force. The Army component commander should be prepared to provide augmentation to the JSRC as required.

c. The commander of a deployed Army force ensures that personnel involved in deep operations, watercraft operations, and all aviation crews are familiar with tactics employed by CSAR forces during recovery operations.

d. The commander of deployed Army forces, in coordination with the JSRC, provides mutual support to the CSAR operations of other components to the greatest extent possible.

e. Commanders of Army watercraft units are responsible to higher echelon commanders for overall coordination of maritime missions within their respective AOs.

3. Concept of Operations

a. On the fluid battlefield envisioned for the future, Army aviation's role in rear, close, and deep attacks and raids and cross-forward line of own troops operations increases the potential need for the rescue of downed aircrews or stay-behind forces. These missions will require a unique combination of individual training, equipment, and tactics to operate as part of a combined arms force. The threat will dictate the tactics and resources used. The task organization for major aviation operations should plan for predesignated CSAR aircraft in the force, such as MEDEVAC or attack aircraft for security if necessary, to react to isolated personnel rapidly.

b. The optimum time to execute a recovery of a downed aircrew or isolated personnel is immediately after the incident occurs. Immediate recovery or "hot pickup" is most desirable because friendly aircraft are in the area, enemy forces have not had an opportunity to react, and medical treatment, if required, will be most beneficial. Before a hot pickup is initiated, however, the air mission commander must consider its effect on the mission, the tactical situation, and the potential cost in equipment and personnel. Of particular concern is the emotion that develops when a unit member is down or otherwise isolated. The air mission commander must not overreact to an emergency situation and jeopardize the mission or unduly risk recovery personnel to capture. Figure A-1 is a sample decision flow chart to lead the mission commander through a logical decision process.

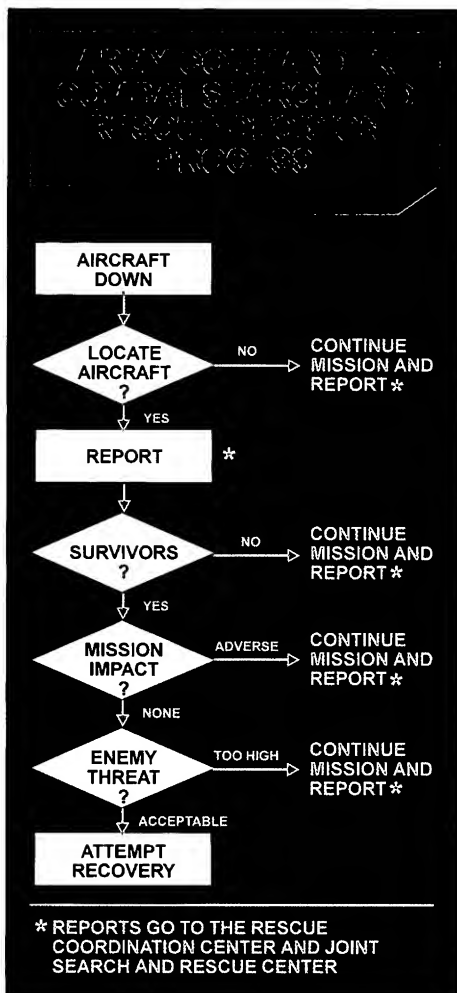


Figure A-1. Army Commander Combat Search and Rescue Decision Process

c. All aviation and LRSUs include CSAR procedures in their tactical SOPs. Detailed SOPs at each echelon ensure that all personnel know their responsibilities. Each SOP includes the following premission planning information:

- Intelligence briefs on threat situations.
- Instructions for providing assistance to downed aircrews.

- A list of on-call or integrated CSAR resources.
- Evasion, authentication, search, and recovery procedures.
- Location of rendezvous points and pickup procedures.
- Requests for support to higher headquarters.
- A deception plan.
- Update and review of ISOPREPs and EPAs.
- Arrange for appropriate forces to provide security for the downed aircrew and aircraft.
- Initiate rescue operations for recovery of the downed aircrew.
- Notify the on-call supporting MEDEVAC unit that will participate in the rescue phase.
- Notify the component RCC if CSAR support is required.
- Dispatch recovery personnel and equipment required to recover the aircraft.

d. The tactical situation, OPSEC, communications security (COMSEC), mission impact, and unit policy set in motion actions and procedures rescuers follow when an aircraft goes down. Each incident involving isolated personnel is handled as a separate event. Basic actions include:

- Recording the location of isolated personnel.
- Determining the extent of injuries to personnel and damage to aircraft.
- Reporting the incident to higher headquarters when mission and security considerations allow.
- Evacuating isolated personnel, if possible.
- Arranging for a downed aircraft recovery team for the recovery or destruction of downed aircraft, as appropriate.

e. The unit that owns or the headquarters that controls a downed aircraft should be prepared to accomplish the following actions upon notification, if the tactical situation permits.

- Authorize on-site destruction when aircraft cannot be recovered.
- f. Reports on downed aircraft must be concise and accurate and include the following:

- Identification of aircraft.
- Location of aircraft.
- Status of personnel (e.g., injuries, mobility).
- Estimate of aircraft damage (total, major, minor).
- Evidence of chemical contamination.
- Enemy situation, including air defense artillery or missile threat.
- Accessibility to downed aircraft.
- Intentions.

g. The Army uses watercraft primarily for resupply, logistics, over-the-shore operations, and other troop support. Army vessels operate

in a maritime environment that will likely remain a low-threat area, or they operate within the protection of other military forces. Army watercraft have limited self-defense capabilities and virtually no offensive weaponry. Watercraft units are trained to readily divert to new, alternate missions and could easily prosecute a CSAR tasking within a reasonable distance.

h. In some situations, ground units may recover isolated personnel. These units may be Army maneuver units, combat support units or other tactical units, or LRSUs. LRSUs may assist in recovery of distressed personnel by linkup and escort to friendly control. For LRSUs to be involved in CSAR, detailed mission planning of rendezvous points, contact procedures, OPSEC and COMSEC limitations, and egress plans must be completed. The JSRC should be cognizant of the limited availability of LRSU assistance and request this assistance through the appropriate commander. Because LRSUs are corps and division assets, the JSRC requests CSAR support through the Army component RCC, who will coordinate with the appropriate corps or division headquarters. The corps or division headquarters normally will accept these missions for their LRSUs if acceptance will not compromise their primary mission.

i. Detailed CSAR procedures for isolated personnel and aviation rescue units are contained in Chapter 7 of FM 1-101, "Aviation Battlefield Survivability."

4. Command and Control

The commander of a deployed Army force has C2 of all Army units and operations (less those units under the operational control (OPCON) or TACON of another headquarters, or the TACON of the JFC or a designated component commander when those units are committed to a joint CSAR

operation). The commander normally exercises this control through policies and SOPs. Unit commanders should coordinate CSAR support with the Army RCC during the mission planning phase of operations to ensure that CSAR-capable assets are available for mission support. Initial control of immediate-action (hot pickup) CSAR operations rests with the on-site commander, usually the air mission commander. If an immediate recovery is not feasible, responsibility for CSAR operations passes to the commander of the unit that owns the aircraft. Command and control of the CSAR effort remains in Army channels until a request for support is accepted by the JSRC.

5. Training

To ensure that all flight personnel are familiar with the contents of the SOP and the expected reactions to an emergency, the aviation unit commander should integrate CSAR training into the unit's training plans and operations. Survival exercises, coupled with CSAR practice, normally provide a thorough check of the unit's capability. In all training and rehearsals, safety is paramount. Aviation unit commanders may request SERE Level C training for flight personnel in addition to unit CSAR training to enhance overall capabilities. The SERE course is taught by the US Army John F. Kennedy Special Warfare School. The National Search and Rescue School is hosted by the USCG and staffed jointly by the USCG and US Air Force. The school provides maritime, inland, and SOF CSAR planning and coordination training for USCG and Department of Defense (DOD) personnel and for foreign students. A USCG correspondence course is available that covers basic SAR plotting and planning. The Transportation School, Fort Eustis, Virginia, conducts familiarization of SAR missions in the Marine Warrant Officers Advance Course.

APPENDIX B

US NAVY COMBAT SEARCH AND RESCUE CAPABILITIES

1. General

Navy CSAR includes all previous CSAR requirements but places increased emphasis on integrating rescue planning and coordination into planning and execution of all strike operations.

2. Resources

Determination of assets employed in a CSAR role is affected by the theater of operations and the threat level. Types of assets available to the officer in tactical command (OTC) include the following:

a. Helicopters

- **Direct Recovery.** Types of platforms available organic to the carrier battle group (CVBG) include helicopters of varying size and capability. Only specific helicopter communities are trained and equipped to operate in hostile overland environments.
 - Organic battle group CSAR assets consist of selected CSAR-trained crews within each carrier-based helicopter antisubmarine warfare squadron (HS). Squadrons equipped with HH-60H helicopters are trained to conduct day and night CSAR and naval special warfare (NSW) operations in a hostile environment against small arms and infrared (IR) missiles. HH-60H crews are specially trained in nap-of-the-earth and terrain flight, flying in hostile environments, night flying using night vision goggles (NVG), and NSW support. Combat radius permitting, ingress and egress circumnavigation routes using terrain masking, when combined with suppression of enemy air defenses, facilitate operations in medium threat levels. Other than the HH-60H helicopter used by helicopter combat support (HCS) and HSs, Navy helicopters lack most survivability features essential to battlefield operations (i.e., radar warning receivers, defensive countermeasures, airframe armor or ballistic tolerance, and internal geonavigational systems). HSs without HH-60H aircraft are capable of limited day and night CSAR operations in a small-arms environment only.
- HCSs 4 and 5 are Naval Reserve units whose primary missions are CSAR and NSW. Each has full-time active duty and Selected Reserve personnel assigned. Each has sufficient numbers of active duty personnel to allow them to deploy some of their assets on short notice while Selected Reserve personnel are activated to deploy more assets if needed. Augmentation with Selected Reserve assets can prove to be a significant force multiplier, and they can be forward deployed at a sea or shore site.
- If there are no dedicated battle group CSAR assets, organic assets within the aircraft of a CVBG are prioritized as follows: (1) Embarked HS. (2) Embarked helicopter anti-submarine warfare squadron, light, light airborne multipurpose system detachments (overwater only). (3) Other helicopter assets (overwater only).
- CSAR assets external to the CVBG should be planned for, coordinated, and requested as part of the initial strike planning activities. Requests for support are forwarded via the chain of command. Requests for reserve forces should be

coordinated with the Commander, Naval Air Reserve Force.

- Helicopters capable of performing night rescues over water are the HH-46D, SH-3H, SH-2F, SH-60B and F, and HH-60H.

- Insert and/or Extract Recovery Force. If a direct airborne recovery is not feasible, helicopters and crews may be used within their threat-level capability in a support role for NSW CSAR operations. Based upon such factors as the size of the recovery force, helicopter range, and threat assessment, helicopters may insert and/or extract recovery forces.

b. **Special Operations Forces.** Because of their inherent capabilities, SOF can provide a viable contingency recovery option. Planners should carefully analyze the threat so that the recovery force is not unduly exposed to the enemy.

- **Naval Special Warfare Forces.** In general, NSW strike and rescue forces use sea-air-land (SEAL) teams, various air assets, fast attack-vehicles, and specialized surface craft, including the patrol boat MK III and IV, high-speed boats, and rigid hull inflatable boats. These assets can be pre-positioned aboard a carrier conducting strike operations, with an amphibious ready group, onboard a submarine for clandestine insertion and recovery, or at other locations in close proximity to the area where rescue operations may be required. These forces are organized to:

- Facilitate contact, authentication, security, medical treatment, movement, and exfiltration for recovery of personnel in high-threat areas.
- Clandestinely recover evaders to

safeguard the integrity of designated evasion areas.

- Coordinate naval gun fire support (NGFS) or close air support (CAS) in support of NSW recovery efforts.

- Collect data for intelligence support of ongoing or future operations.

- Other Special Operations Forces. Based upon the availability of other US or friendly SOF and depending upon the situation and compatibility of forces, SOF other than NSW forces may be employed in support of Navy CSAR operations.

c. Surface and Subsurface

- **Direct Recovery.** The Navy uses surface ships and submarines to recover isolated personnel in an open water environment.
- Insert and/or Extract Recovery Force. Surface and subsurface platforms may be used to support CSAR operations in the event neither direct airborne recovery nor airborne insertion and/or extraction of the recovery force is feasible. Based upon such factors as the size of the recovery force, over-the-horizon navigation requirements, and threat assessment, surface and subsurface platforms may insert and/or extract the recovery force. Submarines, because of their ability to clandestinely insert and extract recovery force personnel, are particularly valuable for situations in which local surface and/or air superiority is not assured.

d. Support Forces

- **Tactical Aircraft.** Typical air assets available within a CVBG include fixed-wing attack and fighter aircraft;

helicopters; surveillance, electronic countermeasures, and command, control, and communications aircraft; and a few tactical aerial refueling aircraft. Also, land-based maritime patrol aircraft (MPA) may be operating in direct support of a CVBG. Long endurance, multiple-search sensors, and extensive communications capability make MPA an ideal overwater search platform. Considerations for using tactical aircraft in a CSAR mission, in order of importance, are as follows:

•• **Fuel Considerations and Time on Station.** Tactical aircraft are heavily dependent upon proximity of the carrier to isolated personnel location and/or availability of in-flight refueling assets. Because of endurance limitations, it would be feasible to provide a RESCORT during the last phase of a CSAR pickup (i.e., from initial point to pickup to initial point).

•• **Existing Threat Level.** Standardized tactics for fixed-wing RESCORT are based upon flight operations in a low-threat environment. Under high-threat conditions, RESCORT tactics, including threat-suppression tactics, if considered at all, should be thoroughly briefed to all CSAR mission participants and will vary based upon location and type of existing threat.

•• **Night and Threat Level Capabilities.** For night CSAR operations necessitated by elevated threat levels, fixed-wing support assets employing night vision devices and/or radar terrain avoidance systems should be used. Such equipment will greatly enhance the ability of the OSC and RESCORT assets to accomplish location and sanitation responsibilities, simultaneously decreasing their detectability to both enemy troop and air

defense forces.

•• **Support Ordnance.** Ordnance requirements depend upon threat weapon systems. For any threat level, use of advanced weapon systems for increased standoff and pinpoint delivery would enhance the suppression of enemy capabilities and minimize aircraft exposure.

•• **Weather.** Weather criteria of a ceiling of 1,000 feet above ground level with 3 miles of visibility is usually considered the minimum for Navy attack aircraft during RESCORT. Should the situation require flying RESCORT in limited airspace and/or adverse weather, extreme vigilance and precision are paramount. The OTC, through the RCT, makes the ultimate go or no-go mission decision.

• **Surface Assets.** Ships may be tasked with providing NGFS, lifeguard functions, helicopter in-flight refueling (HIFR), and emergency landing decks.

3. Responsibilities

a. The senior member (usually the OTC) of any deployed unit or group of units is directly responsible for conducting unit rescue and recovery operations. In most cases, the CVBG commander will be the OTC. To ensure effective and expeditious execution of CSAR missions, the OTC will establish an RCT as described in the "Combat Search and Rescue Manual" (Navy Supplement to NWP 19-2). The RCT is the Navy's functional equivalent of a component RCC. The RCT is the planning and operations nucleus responsible to the strike warfare commander for conduct and execution of all CSAR operations. RCT responsibilities include planning, coordination, control, and recovery of downed aircrews in combat operations.

b. The carrier air-wing is responsible for providing assistance in planning and executing all CSAR missions through the RCT. Additionally, the air-wing commander will ensure that trained crews and aircraft are available to meet potential CSAR mission requirements. The carrier intelligence center is the central clearing point and storage center for intelligence specific to the CSAR mission. The carrier intelligence center is also directly responsible for information pertaining to planning and executing all CSAR operations.

c. The senior member of the RCT should function as the CSAR mission controller, or Navy component controller as appropriate, for specific recovery operations on behalf of the OTC. The senior member appointed by the strike warfare commander is directly responsible to the strike warfare commander for the conduct and execution of CSAR missions.

d. **Amphibious Operations.** During an amphibious operation, the Commander, Amphibious Task Force (CATF), is responsible for CSAR in the amphibious objective area (AOA). CSAR planning is coordinated with the Commander, Landing Force (CLF).

- The CLF is not structured to support landing force (LF) CSAR requirements. Consequently, the CATF should provide CSAR assets or request CSAR support from the JSRC.
- If a CVBG is in support of the amphibious operation and not under the OPCON of the CATF, the CATF should coordinate with the CVBG commander to ensure clarity of CSAR responsibilities.
- Once command and control of the LF has been passed ashore, the CLF is responsible to the CATF for CSAR in the

land portion of the AOA until the amphibious operation is terminated.

4. Concept of Operations

a. CSAR forces may employ any one of a variety of procedures to recover isolated personnel. The situation and threat will dictate the specific recovery method employed. Personnel in nontactical, uncontested environments can expect to be recovered by conventional SAR. Independent helicopter operations in conjunction with NSW are an additional option. Recovery methods employed in hostile environments may vary considerably. Plans should be flexible to ensure efficient employment of available resources with respect to the specific level of threat. The OTC should establish a basis for go or no-go criteria under conditions and circumstances in which the OTC is willing to risk additional assets to conduct CSAR.

b. Planning Considerations

- Planning for the CSAR mission begins during predeployment training. A complete CSAR posture should be developed using an orderly and logical planning process. Planners should apply the following three criteria to each phase of CSAR planning:
 - Theater or subordinate joint force rescue guidance or concept of operations.
 - Strike planning and associated rescue contingencies.
 - Final rescue mission planning.
- The RCT should formulate an inventory of both organic and external resources available to the battle group. This inventory should include all aviation and nonaviation resources, their respective capabilities and limitations, proper

request channels, and estimated time needed from requests to availability on station.

- Planning for a CSAR operation requires specialized intelligence throughout all phases of the operation. In preplanning and predeployment phases, the RCT and carrier intelligence center are responsible for acquiring applicable intelligence publications and developing a data base for CSAR mission planning.
- The CSAR mission often involves coordinated operations using both fixed-wing aircraft and helicopters. Because of differences in flight regimes, aircraft-unique threats should be carefully evaluated by the RCT to determine the appropriate rescue vehicle to be used or requested. The threat will vary with weapon systems as well as the employment doctrine and tactics of the enemy.

c. **Tactical Considerations.** Modern battlefield air defense systems severely limit the feasibility of "Vietnam-type" quick-

reaction recoveries of a downed aircrew. The rapid recovery of personnel at sea or in coastal areas, however, may be feasible as a result of the CVBG's ability to suppress these defenses effectively in small areas for short periods. Recovery of personnel inland requires extensive planning to circumvent air defense and surface threats, localize and authenticate isolated personnel, and coordinate support forces such as tactical aircraft, naval surface fire, shore-based artillery and ground forces, and SOF. Options include the following:

- Clandestine or supported helicopter recoveries.
- Direct or supported surface recoveries.
- Direct or clandestine subsurface recoveries.
- SOF recoveries.

5. Command Relationships

a. Figure B-1 shows the Navy's CSAR C2 relationships.

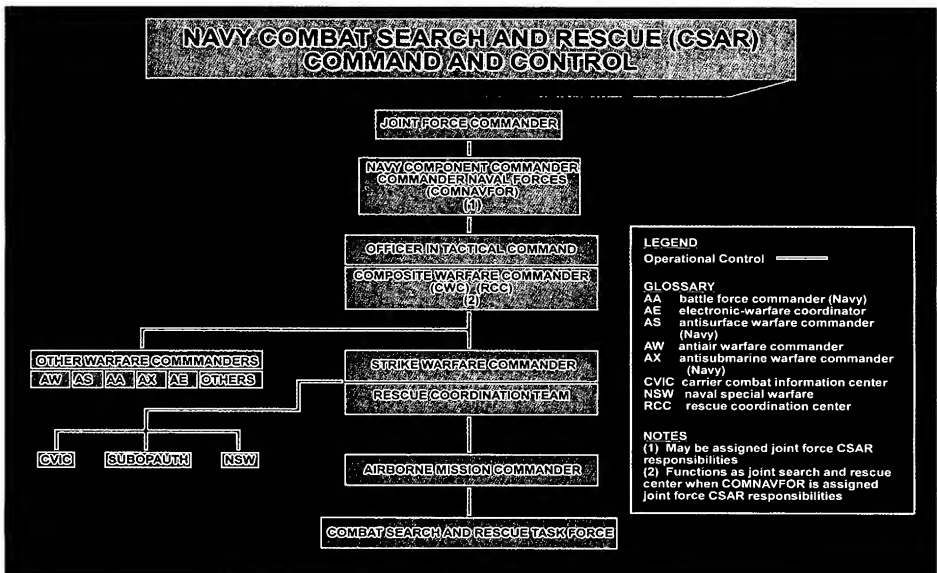


Figure B-1. Navy Combat Search and Rescue Command and Control

b. The Navy component commander should relinquish TACON of CSAR-capable forces as directed by the JFC to a JFC-designated component commander or the JSRC when these forces are committed to a joint CSAR operation.

6. Training

a. Currently, a minimum of three crews within each HS are trained in threat awareness and avoidance, terrain flight, CSAR tactics, NVG flight, and the preparation of ISOPREPs and EPAs during predeployment training. Additionally, the Naval Strike Warfare Center at Naval Air Station Fallon, Nevada, provides detailed integrated CSAR training that includes all tactical air, fixed-wing airborne early warning, HS, and intelligence communities as well as the specific NSW and HCS unit that may be part of later battle group operations. This training attains a CSAR capability up to

medium threat as defined in the Navy "Combat Search and Rescue Manual" (NWP 19-2 Supplement), but achieves an overall air-wing CSAR capability up to and including the high-threat environment when using the NSW forces.

b. An integral part of CSAR training is training given to air-wing intelligence personnel and personnel at risk of becoming captured. The Naval Strike Warfare Center provides classroom and mission planning training to air-wing intelligence officers responsible for supporting the provisions of Chapter V, "Intelligence Requirements" of this publication, further integrating them into each CSAR rehearsal conducted with their particular air-wing at NAS Fallon, NV. Additionally, actual aircrews are trained and participate as the downed aviators in each of these evolutions.

APPENDIX C

US MARINE CORPS COMBAT SEARCH AND RESCUE CAPABILITIES

1. General

The Marine Corps views CSAR as an implied tasking that should not detract from primary functions. Marine Corps forces perform self-supporting recovery operations and external CSAR support through a concept known as TRAP. Marine air-ground task forces (MAGTFs) do not routinely train to conduct the search portion of CSAR, particularly in a medium or high air threat environment. The TRAP mission differs from CSAR in that it usually does not involve extended air search procedures to locate possible survivors. The TRAP concept emphasizes detailed planning and the use of assigned and briefed aircrew for the specific purpose of the recovery of personnel and/or aircraft when the tactical situation precludes SAR assets from responding and when survivors and their locations have been confirmed.

2. Resources

For operations, Marine forces are formed into MAGTFs under a single commander. MAGTFs are task organizations consisting of command, aviation, ground, and combat service support components. The MAGTF is a self-sufficient, integrated, balanced air-ground combined arms force organized for combat. TRAP is a MAGTF mission. As such, all elements of the MAGTF may participate in the TRAP mission.

a. Command Element. The command element (CE) is the MAGTF headquarters and is composed of the commander, the commander's staff, and a surveillance, reconnaissance, and intelligence (SRI) capability. The commander is responsible for the command, control, and coordination of all

MAGTF elements, including assigning tasks and providing the direction needed to accomplish the TRAP mission. The CE can provide information and intelligence to develop enemy, terrain, and weather data bases to be used to plan and execute a TRAP mission. SRI resources have a capability to perform clandestine extracts.

b. Aviation Combat Element

- Although assault support will normally be the point of main effort for the aviation combat element portion of TRAP, all functions of Marine aviation may participate in the mission. Antiair warfare assets (RESCAP) may be needed to ensure freedom of action for the recovery force (airborne or surfaceborne); offensive air support may provide deep air support, CAS, close-in fire support, and RESCORT; and electronic warfare assets may be employed to support the TRAP mission. Two functions that will always be used are air reconnaissance and control of aircraft and missiles. Air reconnaissance should provide continuous observation of the pickup area.
- US Marine Corps assault transport helicopters are not specifically configured for CSAR with the extra armor and defensive armament required. Such configuration would reduce the troop and cargo carrying capacity of the aircraft.

c. Ground Combat Element. The traditional role of the ground combat element (GCE) in TRAP has been to provide various types and sizes of teams to provide security at the pickup site. The GCE can be tasked to

conduct the TRAP mission by surface means to include rigid raiding craft, light armored vehicles, or organic forces to conduct clandestine extracts. Fire support assets of the GCE may be tasked to support the TRAP mission.

d. Combat Service Support Element.

The combat service support element may be tasked to provide a variety of support, including medical, landing zone (helicopter support teams, slings), explosive ordnance disposal, engineer, and other selected service support (supply; water, petroleum, oils, and lubricants; utilities).

3. Responsibilities

a. US Marine forces deploying to a theater of operations should be prepared to conduct self-supporting CSAR operations.

b. The MAGTF commander is responsible for the conduct of TRAP operations involving his forces. The MAGTF commander should also be prepared to provide augmentation personnel to the JSRC and component RCC, if established, as required and directed by higher authority.

c. The MAGTF commander should ensure that all MAGTF personnel committed to a hostile environment are familiar with tactics employed by CSAR forces during recovery operations.

d. The MAGTF commander should provide mutual support to CSAR operations of other joint force components to the greatest extent possible.

e. MAGTF subordinate commanders should ensure that their personnel are familiar with evasion and CSAR tactics and are capable of meeting individual responsibilities.

4. Concept of Operations

a. **General.** The TRAP should not supersede assigned mission objectives and resource requirements, but in a typical situation should be accorded a priority level of importance. The prerequisites for conducting a TRAP mission are as follows:

- There should be reasonable assurance that distressed personnel remain alive.
- The location of the personnel, equipment, or aircraft must be known.

b. Planning Considerations

- It is critical that as much TRAP mission planning as possible be done before deployment of the MAGTF to minimize confusion at the time of mission execution. Such planning comprises three phases:
 - Analysis of theater CSAR guidance or concept of operations.
 - Assault contingency planning.
 - Final TRAP mission planning.
- The MAGTF concept of operations for TRAP missions should include possible scenarios and geographic areas in establishing basic policy. The concept should also describe the conditions under which other resources external to the MAGTF will be requested. The concept should include a specific decision matrix that will assist in determining basic go or no-go criteria. Figure C-1 is a typical TRAP decision matrix.

TRAP DECISION MATRIX

THREAT

High & Medium Density
(AAA / IR Missile)
(Overland)

Low Density
(AAA / IR Missile)
(Overland)

Small Arms
(Day / Night)
(Overland)

Safe
(Overland)

Safe
(Overwater)

REQUIRED
ASSETS

REQUIRED
TACTICS

ACE /
GCE

ACE /
GCE /
CSSE

ACE /
GCE

ACE /
GCE

RECON / SOF

STD

TERF

TERF /
NVG

TERF /
NVG

CLANDESTINE
GROUND
EXTRACT

AAA
ACE
CSSE
GCE
IR

Antiaircraft artillery
aviation combat element
combat service support element
ground combat element
infrared

NVG
SOF
STD
TERF

night vision goggles
special operations forces
standard
terrain flight

Figure C-1. TRAP Decision Matrix

- There is no standard TRAP mission because each tactical situation is unique. The key to success is proper attention to the planning process. A simple, concise concept of operations that accurately reflects theater policy, a thorough contingency TRAP plan for each assault, and rapid final planning after each initial loss report will greatly reduce uncertainty and confusion during the recovery mission.

c. Tactical Considerations. In many cases, survivors will be in a no-go sector. In this situation, other resources may be requested or a clandestine recovery may be employed. In some situations, the survivors will have to evade to a viable recovery area. The ultimate goal of a TRAP is to effect the expeditious return of personnel, equipment, and/or aircraft without further loss of friendly forces.

d. Execution

- **Immediate Recovery.** The ideal time to execute a TRAP mission is immediately after the incident occurs. Immediate recovery is most desirable because friendly forces may still be in the area, enemy forces may not have had an opportunity to react, and required medical treatment can be rendered quickly. Immediate recovery efforts must be tempered by considering the effects that an immediate recovery would have on assigned mission accomplishment. Some threat levels will permit a quick reaction effort to conduct a successful recovery.
- **Delayed Recovery.** In many instances a delayed recovery may be necessary because of assigned mission requirements or the enemy threat.
 - Upon completion of assigned mission, TRAP-capable resources may then be directed to plan and conduct the delayed recovery.
 - In the face of an overwhelming enemy threat, distressed personnel may be directed to evade to a viable recovery area.

5. Command and Control

- a. The MAGTF commander should retain OPCON of assigned forces in order to take advantage of the unique and balanced combined arms capability of the force.
- b. When MAGTF assets deploy in advance of the main body, a MAGTF forward command should be established. OPCON remains with the MAGTF commander and is exercised by the MAGTF's forward CE.
- c. The MAGTF commander may be tasked with supporting other component CSAR efforts. When tasked to support these efforts, the MAGTF commander, as a supporting commander, may relinquish TACON of those forces designated by the MAGTF commander to support the CSAR operations of the supported component commander.

6. Training

MAGTF units train for TRAP missions as part of their overall predeployment program. During this training period, Marines are taught skills that are directly related to the TRAP, including evasion and recovery, night operations, and rapid planning. Although assault transport helicopter crews have skills related to CSAR functions, training time is weighted toward assault support functions—not CSAR.

APPENDIX D

US AIR FORCE COMBAT SEARCH AND RESCUE CAPABILITIES

1. Resources

a. Dedicated USAF rescue and recovery assets include HH-60G helicopters; HC-130P/N fixed-wing aircraft; and RCC controllers, pararescue personnel, SAR duty officers, and SAR liaison officers. Dedicated forces mobilized for deployment are selected and tailored based upon the scope of the conflict. Rescue aircraft and aircrews are made available to the RCC for daily tasking as necessary. With proper coordination and on a case-by-case basis, other USAF resources such as Combat Air Forces (CAF) fighters and C2 aircraft can augment and enhance the capability of primary USAF rescue assets.

- The HH-60G PAVE HAWK helicopter is the primary USAF rescue and recovery platform. Mission tasks of the HH-60G may include formation or single-ship, day or night, marginal weather, low-level operations in hostile territory, and deployment of pararescue personnel. Radio silence, deceptive course changes, and preplanned avoidance of enemy radar, enemy air defenses, and populated areas enhance mission success. The HH-60G has IR countermeasures, passive radar warning systems to avoid detection by radar-directed air defenses, and flare and chaff dispensers.
- HC-130 aircraft are used for air refueling helicopters, inserting pararescue personnel by parachute, and serving as AMC platforms.
- The JFC also may direct augmenting CAF forces to conduct RESCORT; extended search operations (including overwater); air superiority and CAS operations (fighters and/or gunships); C2

operations (AWACS, ABCCC); and other missions capable of supporting theater CSAR operations.

b. USAF Pararescue Forces. Pararescue personnel (PJs) are aircrew members highly trained in emergency medical and harsh environment survival techniques. PJs will normally conduct the final on-scene authentication prior to extraction of isolated personnel. Employment is from either rotary- or fixed-wing assets. Employment from rotary-wing aircraft is by landing or alternate insertion or extraction methods, such as hoist or fast rope. Employment from fixed-wing aircraft will normally be by parachute and may include deployment with deployable water craft. PJs maintain scuba qualification. Certain rescue missions may require short duration PJ ground operations to perform life-saving medical treatment or to protect the survivor from a harsh environment. These operations will be dictated by environmental and tactical considerations.

c. **Combat Air Forces Assets and Capabilities.** The CAF provide RESCORT, RESCAP, limited AMC support, and other support to the rescue effort. Specific mission profiles and procedures are found in aircraft volumes of Multi-Command Manual 3-1.

- **Rescue Escort.** In some scenarios, specially trained RESCORT (dubbed SANDY) may be dedicated to the CSAR mission. A SANDY is a qualified and dedicated (usually A-10) pilot trained in search procedures, authentication techniques, and helicopter support tactics. The lead SANDY is the OSC for CSAR missions. SANDY aircraft can suppress or mark targets for other supporting aircraft to allow the rescue

helicopters to operate in areas with more sophisticated or consolidated threats. SANDY ordnance loads are tailored to the CSAR mission. The Air Operations Center (AOC) or Allied Tactical Operations Center coordinates SANDY missions.

- **Rescue Combat Air Patrol.** Dedicated fighters may be assigned RESCAP support to CSAR missions. The AMC coordinates these fighters through the ABCCC, AWACS, JSRC, or RCC.
- **Command and Control Operations.** AWACS, ABCCC, and airborne forward air controllers (FAC) can perform limited functions as the AMC until properly relieved. In the absence of SANDYs, airborne FACs can make an immediate effort to locate, authenticate, and assist isolated personnel until CSAR resources are dedicated. The airborne FAC may be able to coordinate immediate recovery through the supported Army ground commander's helicopter units.
- **Fighters.** Fighters with air-to-surface ordnance can be diverted to the CSAR effort to provide additional threat suppression. Such support is coordinated through C2 elements.

d. Rescue Coordination Center Controllers. RCC controllers are employed to coordinate CSAR for the Air Force component commander (AFCC). The RCC controllers function as the Air Force RCC, normally at the AOC level or as determined by the AFCC. Controllers also may augment a JSRC or multinational search and rescue center, providing Air Force representation when required. RCC controllers are CSAR air operations officers and C2 specialists and technicians. RCC controller duties include the following:

- Prioritizing all reports of downed aircraft and other personnel in distress.
- Maintaining a repository for mission-critical data.
- Dispatching Air Force component rescue forces as directed or required.
- Requesting collateral Service support to effect rescues.

2. Responsibilities

a. Parent major commands (MAJCOMs) are responsible for organizing, training, equipping, sustaining, and providing operationally ready forces for CSAR operations. Air Combat Command, as the proponent for all CAF rescue forces, is the lead agent for the other MAJCOMs.

b. Commander, Air Force Forces conducts CSAR operations in support of Air Force forces within the commander's assigned area. Paragraph 5 describes how this commander exercises OPCON of CSAR forces.

3. Concept of Operations

a. Because of the volume of taskings expected during a major conflict, combat rescue forces will most likely employ single-ship, night, low-level, terrain masking tactics. A typical scenario may include:

- Planning the mission in detail.
- Launching the recovery vehicle.
- Refueling at a forward operating location or forward area under night and low-level conditions to exploit darkness and terrain masking for the pickup.

- Executing the pickup by landing or using the rescue hoist. Landing is the preferred method, especially when extracting several isolated personnel.
 - Egressing, while exploiting terrain and darkness, as on the ingress.
 - Accomplishing minimum-light, communications-out air refueling, as required.
 - Recovering at a suitable friendly base.
- d. Regardless of the threat level, friendly forces first must locate and then authenticate isolated personnel before initiating combat rescue operations. Several methods exist to determine location, such as theater electronic surveillance and C2 aircraft (e.g., TR-1, AWACS, ABCCC, RF-4), global satellites, wingman reports, and battlefield radar control posts and centers.

b. Although all Air Force resources have the inherent capability to support CSAR operations, certain USAF forces are specifically dedicated to a primary mission of search, rescue, and recovery. Specially configured helicopters are the desired and standard recovery vehicle. Dedicated USAF forces can conduct rescue operations in both permissive and hostile environments. These resources are generally restricted to operating in a low-to-medium threat environment using threat avoidance procedures. When threat avoidance is not feasible, augmenting forces, such as specially trained RESCORT and RESCAP forces, are required for successful CSAR operations.

c. The Air Force integrates its efforts into the host nation's CSAR operations. In light of the probable joint nature of future conflicts, the Air Force also considers the capabilities of other components during mission planning. In relatively low-threat environments, resources may respond to rescue taskings with a minimum amount of mission planning. Missions into medium-threat environments require detailed mission planning and accurate intelligence before execution. When rescue units require augmentation by air cover, air refueling, or CAS, they must coordinate closely with the other forces to properly integrate this effort. The JFC can direct precautionary CSAR coverage (within a limited geographic area) in advance of a major

e. The concept of "combat search" associated with Air Force CSAR is limited in scope. Air Force CSAR forces can conduct effective search operations only in a permissive environment. The vulnerability of rescue resources in a threat environment precludes combat search operations. Air Force rescue efforts will be almost totally dedicated to extracting isolated personnel from previously identified geographic positions. To facilitate recovery, combat aircrews must be knowledgeable of the rescue process, to include EPA preparation, identified SAFEs, and proper evasion tactics and techniques.

f. The employment of Air Force resources depends upon the JFC's concept of apportionment. The Air Force has several systems with rescue or recovery capability (i.e., MH-53J, MH-60G, and HH-60G). Apportionment of these resources is based upon the relative priority of theater objectives. Currently, the most capable recovery vehicles for operating in a threat environment, the MH-53J and the MH-60G, have the mission of conducting special operations and are controlled by the SOF commander. Forces capable of defeating or neutralizing threats (i.e., fighters and fighter bombers and AC-130 gunships) are controlled by various joint force components. The ability of the component RCC and JSRC to assemble an appropriate recovery package and coordinate a successful recovery operation depends, to a

great extent, on the JFC's explicit direction for lower echelon support of the joint force rescue and recovery system.

g. Because the level of threat determines the required tactics, personnel, and equipment, thorough mission planning, interfaced with real-time threat information and C2 coordination, is essential. Specific information necessary for premission planning and the launch decision includes, but is not limited to, intelligence, threat, weather, terrain, the objective, codes and authentication, safe passage corridors, and air refueling points. Direct communication with the JSRC or multinational search and rescue center, component RCCs, AOCs, and wing operations centers is therefore essential. This direct communication becomes even more important if augmentation of additional air resources such as RESCAP or the formation of a CSARTF becomes necessary.

h. Another important factor is the threat. Dedicated USAF recovery vehicles capable of operating in a low-to-medium threat environment may function successfully in an area generally categorized as high-threat if an extensively planned mission routing masks the operation. On the other hand, in a high-threat environment, even the use of the most capable SOF resource most likely will result in an unsuccessful recovery if extensive planning is not done. As in all military actions, commanders must tailor forces to the threat in the objective area as well as the ingress and egress routing. Tailored responses may vary greatly, and commanders should consider not only capabilities of dedicated CSAR forces but the capabilities of other available resources.

4. Deployment Characteristics

The Air Force equips and organizes rescue forces for rapid deployment. Dedicated rescue forces can deploy with organic maintenance and logistic support, which contributes to their

mobility, flexibility, and responsiveness. Rotary-wing aircraft are normally airlifted for deployment. Fixed-wing aircraft can self-deploy combat configured. Maintenance and support personnel and associated equipment require airlift support or surface transportation for deployment. Operations exceeding 30 days require follow-on personnel and equipment.

5. Command Relationships

a. The AFCC normally exercises OPCON of assigned Air Force CSAR forces through the respective wing, group, and squadron commanders. The AFCC coordinates all rescues through the RCC. A typical CSAR C2 arrangement with its associated control and operations centers is shown in Figure D-1.

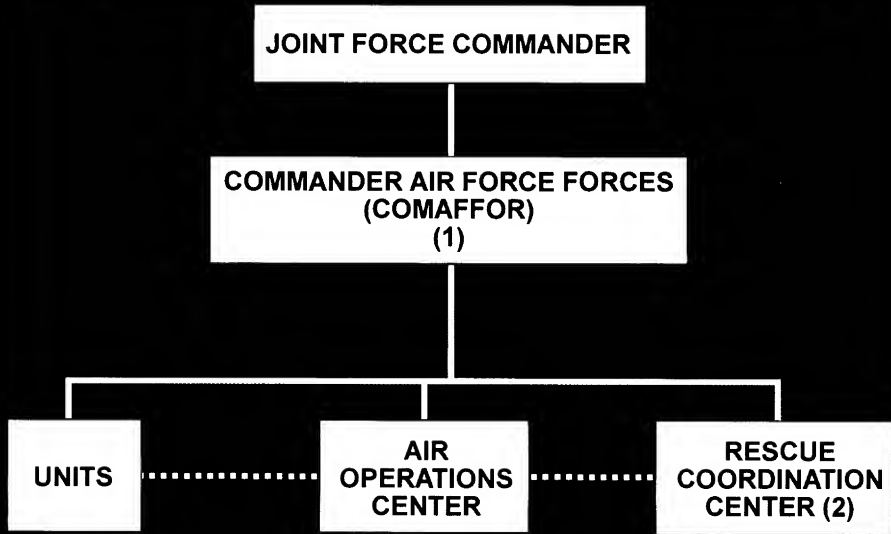
b. The AFCC should relinquish TACON of CSAR-capable forces as directed by the JFC to a JFC-designated component commander or to the JSRC when these forces are committed to a joint CSAR operation.

6. Training

a. **Aircrews.** All crew members receive combat survival training and helicopter pilots, flight engineers, and PJs receive underwater egress training before receiving CSAR initial or qualification training. CAF (fighter) aircrews are trained to respond to CSAR as their aircraft capabilities permit. A limited number of A-10 pilots are specially trained (SANDY) and all airborne FACs receive CSAR training. All CAF aircrews receive SERE and water survival training. If they become isolated personnel, they are prepared to assist rescue forces. Training is unit-sponsored and conducted.

b. **USAF Pararescue Forces.** The Air Force draws candidates for pararescue forces from enlisted basic training and existing Service personnel requesting special duty.

AIR FORCE COMBAT SEARCH AND RESCUE (CSAR) COMMAND AND CONTROL



LEGEND

Operational Control ———

Tactical Control / Coordination

NOTES

- (1) May be assigned joint force CSAR responsibilities
- (2) Functions as joint search and rescue center when COMAFFOR is assigned joint force CSAR responsibilities

Figure D-1. Air Force Combat Search and Rescue Command and Control

Pararescue candidates attend a series of schools for indoctrination, static-line parachuting, scuba, basic survival, water survival, underwater egress, and basic medical training. Once basic qualification is complete, PJs receive:

- Combat emergency medical training.
- Special mission training (aerial night vision scanning and gunnery) in their unit.
- Free-fall parachute training.
- Advanced military tactical training.
- Foreign weapons and desert operations training.
- Refresher medical and pararescue team leader training.

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APPENDIX E

US COAST GUARD COMBAT SEARCH AND RESCUE CAPABILITIES

1. Resources

a. All USCG cutters, aircraft, and boats are multimission vessels that can be considered potential CSAR resources. USCG cutters range from high and medium endurance cutters, which can operate offshore for extended periods of time, to coastal patrol and utility boats capable of operating in coastal and local waters for short durations. USCG aircraft include HC-130 and HU-25 fixed-wing aircraft capable of extended long-range CSAR, HH-65 helicopters for short-duration local CSAR operations, and HH-60J helicopters for medium-range CSAR.

b. The RESCAP and RESCORT capabilities of USCG aircraft are extremely limited. "Intercept and escort" missions in a low-threat environment will be the upper limit of RESCORT capability for USCG aircraft, which have no weaponry and very limited combat survivability. The services provided to the escorted resources will be generally the same as in a peacetime intercept and escort of a distressed aircraft—specifically, communications and navigation services, potential rescue or aerial delivery of survival equipment, and vectoring of resources capable of accomplishing recovery.

c. The USCG's computer-assisted search planning model is a valuable asset in search planning for extended, open-ocean searches. Access to the model is available through USCG RCCs.

d. Shipboard support that may be rendered to other components' helicopters is outlined in paragraph 6.

2. Responsibilities

a. The Commander, USCG Pacific Area, and Commander, USCG Atlantic Area, are responsible to the Commander in Chief, US Pacific Command and the Commander in Chief, US Atlantic Command for overall coordination of maritime CSAR within their respective AORs. As CSAR coordinators, the USCG area commanders are specifically charged to establish and operate JSRCs for these two unified commands. In wartime, all existing USCG operations centers will continue to function at their present location and retain their RCC capability and function.

b. The USCG provides personnel who can augment up to five deployable JSRCs operating outside the continental United States. USCG area commanders are responsible to the fleet commanders.

c. Contingencies may require establishment of additional JSRCs that would be augmented by CSAR-qualified USCG and DOD personnel. These needs may be addressed to the Commandant, USCG, who will then identify the resources required to operate the requested JSRCs.

d. The JFC may request additional USCG resources for CSAR operations from the Commandant, USCG, via all appropriate echelons of command.

3. Concept of Operations

a. The CSAR role of the USCG will be an extension of its peacetime mission. The USCG participates in the Joint Operation Planning and Execution System for the deliberate planning process.

Appendix E

b. During wartime, it is prudent to plan for the CSAR contingency as early in the planning phase as possible. Although all OPLANs, CONPLANs, and mission OPODs contain a CSAR appendix, a CSAR plan of action and resources are frequently not identified before they are needed or placed on standby for CSAR operations. This concept of operations assumes tasking before the mission begins and that the JSRC will be located so as to facilitate timely planning input and coordination and/or control of all CSAR operations by the JSRC.

c. USCG cutters, boats, and aircraft normally operate in a maritime environment that will remain predominantly a low-threat environment or within the protection of other military forces. Some USCG resources have a very limited defensive capability; most have no offensive weaponry. Offensive capability or increased defensive capability may not be required for many USCG CSAR taskings. Some cutters have the capability to operate in medium-to-high threat scenarios and may be tasked to do so. A primary mission for the USCG during peacetime is SAR planning and coordination. USCG personnel are well suited to perform in this capacity during joint combat operations. USCG cutters and fixed-wing aircraft are equipped and their crews are trained for, and regularly perform, OSC duties. USCG resources are ideal for low-threat, precautionary CSAR missions such as duckbutts.

d. USCG units are accustomed to multiple missions in a single sortie or to changing missions in mid-sortie. For example, a buoy tender whose primary function is the maintenance of navigation aids may be diverted from that function to perform any other priority mission. During peacetime operations, this multimission concept provides the diversion of resources to the highest priority mission from a relatively low level in organizational structure. In a combat

situation, however, mission priorities should be established clearly and tasking orders should define clearly the type of response desired (i.e., when directed or as directed, or automatically in accordance with prescribed mission priority). Cutters assigned to perform surveillance and interdiction patrols could also be an immediate CSAR resource. Thus, the multimission concept becomes a force multiplier. A USCG cutter, given the latitude of automatic response, will respond to a CSAR incident and complete it without further guidance.

e. Large USCG cutters are fully capable of operating as part of a Navy task force. USCG aircraft can readily operate from non-USCG shore-based facilities, military or civilian. Several similarly classed patrol boats (WPBs) can be deployed, using a squadron concept, with additional spare parts and a small cadre of support personnel. Tasking can then be handled through a squadron commander. These squadrons can be sea-based as an independent force or part of a Navy task force.

- USCG small boats (less than 65 feet in length) are normally shore-based and are designed to operate in the coastal environment. Although they could be deployed aboard ships similar to the squadron concept mentioned above for WPBs, these boats are not designed for open-ocean operations.
- Some types of USCG helicopters can be deployed with USCG cutters and/or Navy ships, subject to restrictions described in COMDTINST M3710.1 (Series), "Air Operations Manual," COMDTINST M3710.2 (Series), "Shipboard-Helicopter Operational Procedures Manual," and NAEC-ENG-7576, "Shipboard Aviation Facilities Resume." Normally, the ship commander will task deployed helicopters.

4. Command Relationships

a. USCG wartime tasking is divided into two categories: (1) normal peacetime USCG functions and responsibilities and (2) naval military functions as tasked by the Chief of Naval Operations in the "Navy Capabilities and Mobilization Plan." The Commandant, USCG, as the Chief of a Service, controls the administrative, managerial, and technical aspects of all USCG functions. Operationally, in wartime, the Commandant should continue to exercise control over continuing specialized USCG functions, including normal peacetime responsibilities. For military functions, however, the commands of the USCG area commanders and Commander, USCG Activities, Europe, are the highest echelon of USCG commands that have an operational relationship with the Navy. Thus, these commanders report to the appropriate Navy component commander and normally exercise

OPCON over USCG forces conducting military functions.

b. When the USCG operates as part of the Navy—upon declaration of war or when the President so directs—in accordance with title 14, United States Code 3, the Commandant, USCG, is responsible to the Secretary of the Navy for the continued performance of those missions and tasks assigned by statute. The Commandant also reports to the Chief of Naval Operations for the organization, training, and readiness of those elements assigned to the Navy. When a maritime defense zone (MDZ) is activated, all USCG operational functions are subordinate to it. The Commander, USCG Atlantic, and Commander, USCG Pacific, become MDZ commanders and are directly subordinate to the respective fleet commander-in-chiefs for coastal defense. A typical USCG CSAR C2 arrangement is shown in Figure E-1.

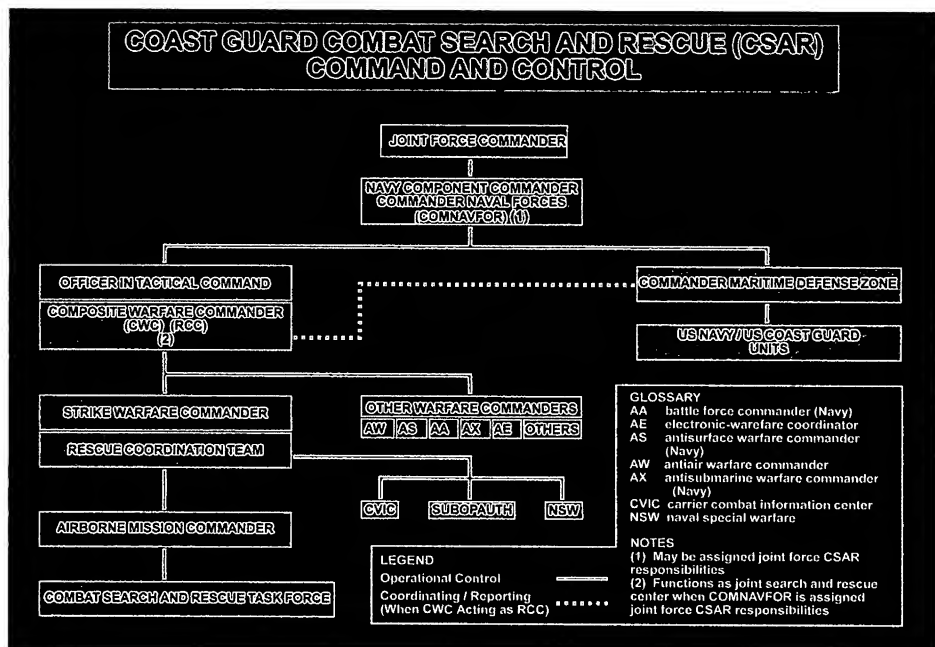


Figure E-1. Coast Guard Combat Search and Rescue Command and Control

c. USCG unit and organization commanders should relinquish TACON of CSAR-capable forces as directed by the JFC to a JFC-designated component commander or the JSRC when these forces are committed to a joint CSAR operation.

5. Training

a. The USCG SAR Program Manager (office symbol "G-NRS") is assigned to the Office of Navigation Safety and Waterway Services (G-N) in USCG Headquarters, Washington, D.C. The SAR Program Manager is responsible for defining the curriculum for all SAR training in the USCG.

b. The USCG hosts the National SAR School and, with the Air Force, jointly staffs it. The school provides maritime, inland, and SOF planning and coordination training for USCG, DOD, and foreign students. The school does not presently teach CSAR in any detail. A USCG correspondence course for basic SAR plotting and planning is available from the USCG Institute in Oklahoma City, Oklahoma.

6. Ship-Helicopter Compatibility

a. Procedures and requirements for operating helicopters on flight-deck-equipped USCG cutters are contained in COMDTINST M3710.2 (Series), "Shipboard-Helicopter Operational Procedures Manual" and NWP 42, "Shipboard Helicopter Operating Procedures." In general, for a non-USCG helicopter to operate from a USCG cutter, current directives require "favorable" conditions such as no more than two degrees pitch and four degrees roll of the vessel (unless otherwise determined by dynamic interface trials) and adequate clearance from vessel

structures for the aircraft to land and take off from the flight deck. The pilot of the helicopter should be shipboard-qualified in accordance with parent Service or component directives. Physical dimensions and flight-deck clearance measurement information is contained in NAEC-ENG-7576, "Shipboard Aviation Facilities Resume."

b. Use of USCG helicopters on non-USCG ships and non-USCG helicopters on USCG cutters is authorized for those combinations shown to be acceptable in NAEC-ENG-7576, "Shipboard Aviation Facilities Resume." Generally, for both situations, the provisions of subparagraph 6a apply. Additionally, for operations on vessels not covered by NAEC-ENG-7576, "Shipboard Aviation Facilities Resume," sufficient vessel deck strength and a buffer distance of at least 10 feet between rotor blades and obstructions above 24 inches in height are mandatory. Requests for waivers and situations not covered in NAEC-ENG-7576, "Shipboard Aviation Facilities Resume" should be addressed to the Chief of Law Enforcement and Defense Operations (G-O), US Coast Guard Headquarters, Washington, D.C. Time-critical requests for waivers should be forwarded through the cutter or aircraft commander.

c. Aviation-capable USCG cutters can provide varying degrees of navigation and communications support, depending on the class of ship. These cutters also carry a supply of JP-5 and have the capability of filtering and testing fuel for water and particulate matter as well as helicopter in-flight refueling (HIFR). Some cutters have hangars but require rotor blade folding capability for helicopters to be hangared. External electrical power is also available for engine starting and maintenance. Specifications for these systems are expanded on in NAEC-ENG-7576, "Shipboard Aviation Facilities Resume."

APPENDIX F

SPECIAL OPERATIONS COMPONENT COMBAT SEARCH AND RESCUE CAPABILITIES

1. General

The JFSOCC, as either the commander of the theater special operations command (SOC) or a joint special operations task force, has CSAR capabilities inherent in the command's forces, equipment, and training. SOF conducting CSAR would be doing so as a collateral special operations activity. This would be accomplished when the specialized capabilities of SOF may be required to recover isolated personnel beyond the capabilities of other components. Normally, SOF is responsible for the CSAR of its own forces, except when use of non-SOF CSAR forces is appropriate in more benign environments and these non-SOF CSAR forces are available.

2. Resources

a. The JFSOCC may have a variety of resources available including the following:

- **Air Force SOF.** Air Force SOF resources include the following:
 - The MC-130 COMBAT TALON aircraft has night and adverse weather capabilities for airdrop insertion of forces and airland extraction. The AC-130 gunship may provide close air support and RESCORT capabilities. MH-53J and MH-60G helicopters have night and adverse weather capabilities to support SOF combat forces. The HC-130 has a primary mission of helicopter refueling, but also can conduct airdrop and airland operations.
 - Air Force SOC Special Tactics Squadrons include special operations PJ who are trained and equipped to conduct both on-airframe and surface operations.

Their broad-based training allows employment on a variety of Air Force and Army SOF air platforms. They facilitate contact, authentication, security, medical treatment, movement, and exfiltration for recovery of personnel and equipment not accessible to conventional CSAR resources. This may include SAFE servicing and hand-over operations.

- **Army SOF.** Certain Army SOF possess the skills, capabilities, and modes of employment to perform some CSAR missions. Army special forces (SF), for example, deploy in small teams and are trained to operate clandestinely in enemy territory or denied areas. These capabilities make them an effective CSAR asset in situations where these techniques of rescue and recovery may be preferable because of terrain, enemy air defenses, and weather or when an Army SF team is already present in the vicinity of the CSAR requirement. When conditions permit, Army SF can operate effectively with Army or other Service conventional or special operations aviation assets when these are available and employable to assist the rescue or recovery. Like their Air Force and Navy counterparts, Army SOF aviation assets (e.g., MH-60K and MH-47) possess low-level penetration NVG and adverse weather capabilities that can facilitate a recovery.
- **Naval Special Warfare.** NSW component commands encompass a broad range of capabilities in maritime and riverine environments. The principal components for consideration in CSAR missions include SEAL teams, SEAL

delivery vehicle teams, and special boat squadrons. Specialized maritime insertion and extraction platforms are organic to these units. The Naval Reserve also has a limited number of light helicopters to support NSW mission requirements. When conditions permit, NSW can operate effectively with naval or other Service component conventional or special operations aviation assets when these are available and employable to assist the rescue or recovery.

3. Responsibilities

The JFSOCC normally will not have a separate RCC like the Air Force or Navy components, but the functions comparable to an RCC will be resident within the JFSOCC's JOC. The JOC is staffed with personnel responsible for coordinating SOF CSAR operations and is the focal point for the joint force JSRC to request SOF assistance and for the JFSOCC to request JSRC assistance. The JFSOCC should provide liaison to the JSRC. This will provide two benefits: first, it provides the JSRC with the expertise to appropriately consider SOF capabilities relative to available resources and ongoing and planned JFSOC missions; second, it provides the JSRC with someone from the JFSOC who is dedicated to the joint rescue effort and familiar with the overall CSAR picture who can advise the JFSOCC if the JFSOC is tasked to perform a CSAR mission.

4. Concept of Operations

a. SOF prosecute CSAR operations using the guidelines of this publication and Joint Pub 3-50.21, "Joint Tactics, Techniques, and Procedures for Combat Search and Rescue." When SOF are required to conduct CSAR as a special operation, then SOF follow Joint Pub 3-05, "Doctrine for Joint Special Operations,"

Joint Pub 3-05.3, "Joint Special Operations Operational Procedures," Joint Pub 3-05.5, "Joint Special Operations Targeting and Mission Planning Procedures," and applicable precepts of this publication and Joint Pub 3-50.21, "Joint Tactics, Techniques, and Procedures for Combat Search and Rescue." For example, when assigned a CSAR mission, SOF will require ISOPREP data to authenticate isolated personnel.

b. Tasking SOF to conduct CSAR is appropriate in the following circumstances:

- The operating environment requires the special capabilities of SOF.
- The priority for recovery of isolated personnel is sufficiently high to warrant a special operation.

c. Under specific operational circumstances, SOF may be used for precautionary CSAR. This is appropriate, for instance, during contingency operations when the sensitivity of particular missions justifies the use of SOF as lifeguards along operating routes.

5. Command and Control

a. Theater assigned SOF are normally under the OPCODE of the theater SOC through its components. SOF assigned or supporting a theater SOC will vary by theaters. The JSRC and the SOC JOC coordinate all CSAR missions involving SOF. The SOC JOC is the preferred coordination point for CSAR operations when circumstances make the use of conventional CSAR forces inappropriate or unfeasible. SOF command and control is detailed in Joint Pub 3-05, "Doctrine for Joint Special Operations."

b. Control of SOF should remain with the JFSOCC on personnel recovery missions that are characterized by detailed

planning, preparation, possible rehearsal, and thorough analysis. The JFSOCC may relinquish TACON of SOF forces when they are necessary to conduct specific joint CSAR operations. However, if SOF is required for joint CSAR operations because of its penetration capabilities or because it is the only CSAR force in theater, then TACON normally remains with the JFSOCC.

6. Training

SOF personnel receive sufficient initial SERE and special operations training to conduct missions in support of CSAR operations, if tasked. Additional training for SOC staff and planners, as well as operational personnel at unit level, should ensure knowledge of theater SAFEs, lifeguard stations, submarine pickup points, and theater-specific EPA guidance.

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APPENDIX G

COMBAT SEARCH AND RESCUE INTEROPERABILITY REQUIREMENTS

1. General

Interoperability requirements are normally surfaced when a CSAR mission involves forces from two or more components in the joint force. The urgent nature and quick response time usually associated with CSAR operations require some forethought with respect to interoperability. As noted in paragraph 4 of Chapter I, "Responsibilities," component commanders should "take into account the availability and capability of forces of other components of the joint force, including the USCG if assigned" when planning CSAR in support of their own operations. In similar fashion, paragraph 5 of Chapter I notes that unit commanders "should take into account the capabilities of adjacent units" when concurrently planning CSAR support and ongoing mission-type operations. An understanding of potential interoperability requirements is essential to successful and timely joint CSAR planning and execution.

2. Equipment Compatibility

Interoperability requirements primarily involve equipment compatibility, to include repair and supply. Methods of operation and operational procedures are not normally interoperability issues except in shipboard helicopter operations. In addition to ship-helicopter compatibility, interoperability requirements include but are not limited to communications equipment, intelligence ADP equipment, fuel and refueling, and maps and charts.

a. Ship-Helicopter Compatibility. Ship-helicopter compatibility is an interoperability issue that surfaces often during CSAR operations in the maritime and coastal

environments. The extended range of some helicopters makes the use of shipboard support facilities feasible in certain inland CSAR scenarios. Coast Guard and Navy flight-deck-equipped vessels are capable of providing some support to deck-landing-qualified Army and Air Force helicopters and crews.

- Procedures and requirements for operating helicopters on flight-deck-equipped USCG and Navy vessels are contained in COMDTINST M3710.2 (Series), "Shipboard-Helicopter Operational Procedures Manual;" NWP 42, "Shipboard Helicopter Operating Procedures;" NAVAIR 00-80T-105, "CV NATOPS Manual;" NAVAIR 00-80T-106, "LHA/LPH/LHD NATOPS Manual;" and Joint Pub 3-04.1, "Joint Tactics, Techniques, and Procedures for Shipboard Helicopter Operations."
- Physical dimensions and flight-deck clearance information are contained in NAEC-ENG-7576, "Shipboard Aviation Facilities Resume."

b. Communications Equipment. Compatibility of communications equipment in CSAR operations is essential, particularly when a joint CSARTF is employed. The timing and coordination so necessary for effective CSAR operations becomes considerably more difficult as additional resources are added to the CSARTF. As noted in paragraph 4 of Chapter III, "Command, Control, Coordination, and Communications," "Every effort should be made to use secure communications in a hostile environment as the compromise of critical information could easily jeopardize the entire CSAR effort, including the loss of scarce CSAR resources." Depending upon the composition of the joint

force, specific communications interoperability considerations should include the potential for CSAR-related air-to-air, surface-to-air, and/or surface-to-surface communications. Noninteroperable communications equipment could preclude the effective usefulness of a joint CSARTF and may be a factor for assigning the CSAR mission to a single component as a mission type order.

c. Intelligence Automated Data Processing Equipment. Compatibility of intelligence ADP equipment is essential to ensure rapid and secure intelligence data file transfer between the JSRC, component RCCs, and CSAR-capable units, particularly during the planning and execution of time-sensitive CSAR operations. Stand-alone intelligence processors receiving real-time intelligence over satellite communications networks provide a significant capability.

d. Fuel and Refueling. Fuel and refueling capabilities are interoperability requirements often overlooked in joint CSAR planning.

- **Fuel**

- Cross-tasking of CSAR and/or CSAR-capable resources, particularly helicopters, may result in unanticipated fuel requirements. Some helicopters use more than one type of fuel. For example, Marine Corps CH-46s and Army CH-47s and OH-58s use JP-4, JP-5, or JP-8.

- Shipboard fuel safety restrictions can impact operations. As an example, fire safety requirements aboard Navy vessels preclude the nonemergency refueling of helicopters or other aircraft that have

been fueled with fuels having a volatility higher than JP-5.

- **Refueling.** Refueling interoperability requirements include both regular and aerial refueling considerations. Nozzles, fittings, and couplings vary among helicopters and Services. Cross-tasking of helicopters for CSAR may also require cross-tasking of refueling support (ground and/or aerial) for these aircraft.

e. Maps and Charts. Maps and charts play a key role in the planning and execution of CSAR operations. The necessity for CSAR planners, isolated personnel, and operators to use the same map and/or chart series or sheet is particularly crucial to a successful CSAR mission. With a search capability already limited by scarce resources and probably further debilitated by hostile capabilities and intent, it is essential that CSAR forces use the same reference points and same reference system (e.g., grid or latitude and longitude) for ingress, recovery, and egress. Timely and accurate coordination and use of supporting arms in CSAR are also facilitated by using the same map and/or chart series or sheet.

3. Joint Tactics, Techniques, and Procedures

Tactical interoperability can greatly increase the probability of a successful mission. Joint Pub 3-50.21, "Joint Tactics, Techniques, and Procedures for Combat Search and Rescue," is a single source document that provides information necessary to plan and execute joint CSAR operations across the range of military operations.

APPENDIX H

EVASION PLAN OF ACTION

1. **See Joint Pub 3-50.3, "Joint Doctrine for Evasion and Recovery," for specific guidance for preparing EPAs.**
 - Evade alone or link up with crew or team (rally points).
 - Travel plans (distance, duration or time, speed).
 - Intended actions and/or length of stay at initial hiding location.
2. **As a minimum, however, EPAs should include the following information:**
 - a. **Identification**
 - Name and Rank (for each crew or team member).
 - Mission Number, Aircraft or Team Call Sign or Identifier, Crew or Team Position, Type Aircraft, Call Sign Suffix, Other.
 - b. **Planned Route of Flight, Travel, and/or DELTA Points on File**
 - If not on file, the route points should be described in the EPA for both ingress and egress.
 - Describe in-flight emergency plans for each leg of the mission.
 - c. **Immediate Evasion Actions and/or Intentions for the First 48 Hours, if Uninjured (for example):**
 - Hide near aircraft, parachute landing site, or the planned area of separation from team (distance and heading).
 - d. **Immediate Evasion Actions and/or Intentions, if Injured.**
 - e. **Extended Evasion Actions and/or Intentions After 48 Hours**
 - Destination (SAFE, mountain range, coast, border, forward edge of the battle area).
 - Travel routes, plans, and/or techniques (either written and/or sketched).
 - Actions and/or intentions at potential contact or recovery locations.
 - Recovery or contact point signals, signs, and/or procedures (written out and/or sketched).
 - Backup plans, if any, for the above.

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APPENDIX J

INSTRUCTIONS FOR ISOLATED PERSONNEL REPORT (DD FORM 1833)

1. ISOPREP Front

The ISOPREP is typed or completed in ink; however, a pencil is used to complete items 3, 13, 14, and 20 through 24.

a. **Items 1 through 13.** Self-explanatory.

b. **Item 14.** Enter a four-digit number that can be easily remembered. This number should not be in the individual's military records or public information.

c. **Item 15.** Self-explanatory.

d. **Items 16 through 19.** To be completed by RCC/RCT personnel.

e. **Items 20 through 23.** Complete with short declarative statements, not questions and answers. These statements should be personal details that are easily remembered and not subject to change. Details of friends, relatives (other than immediate family), pets, vehicles, and vacations would be appropriate. Avoid references to dates, ages, or other information from the individual's military record or public information. (For example: "My first car was

a brown and white, 2-door, 1951 Chevrolet.") Recovery forces will then be able to derive several questions from each statement to authenticate the individual.

f. **Item 24.** Additional Data, for local use.

2. ISOPREP Back

a. **Blocks 1 through 10.** Used to record fingerprints and appropriate codes. Fingerprinting will only be accomplished by qualified personnel from the offices of the Provost Marshall, Security Police, Military Police, Special Investigation, Criminal Investigation Division, or other trained personnel. When SOF assume or are assigned responsibility for the recovery of an individual by unconventional means, SOF code the individual's fingerprints on the ISOPREP. Fingerprints need not be coded before forwarding the ISOPREP to SOF.

b. **Photographs.** Provide current front and profile photographs of the individual in appropriate uniform without headgear (for the Air Force, see applicable major command supplement to AFR 35-10).

CONFIDENTIAL (WHEN FILLED IN)

<div>ISOLATED PERSONNEL REPORT (ISOPREP) <small>(See Privacy Act Statement on reverse before completing this form)</small></div>		1. NAME (Last, First, Middle Initial)		2. SSN	
<div>CLASSIFIED BY: AFR 64-3, AR 525-90 NWP 19-2 DECLASSIFY ON: OADR</div>		<div>INSTRUCTIONS Items 1 through 15 and 20 through 23 are to be completed by Applicant. Items 16 through 19 and Item 24 are to be com- pleted by RCC Personnel. All items are to be filled in INK; however, use a PENCIL for items 3, 13, 14, and 20 through 24.</div>			3. RANK/GRADE
4. BRANCH OF SERVICE		5. NATIONALITY	6. DATE OF BIRTH (YYMMDD)	7. OBVIOUS MARKS (Scar, Birthmark, Mole)	
8. BLOOD GROUP		9. HEIGHT	10. COLOR OF EYES	11. COLOR OF HAIR	
12. DATE PREPARED (YYMMDD)		13. DATE REVIEWED (YYMMDD) AND CURRENT ASSIGNMENT		14. AUTHENTICATOR NO.	
				15. SIGNATURE	
16. DATE MISSING (YYMMDD)		17. LOSS POSITION	18. PRIORITY (Hold vital information requiring priority rescue) <input type="checkbox"/> YES <input type="checkbox"/> NO	19. SPARE	
<div>----- Fold here -----</div>					
PERSONAL AUTHENTICATION STATEMENTS					
20.			21.		
22.			23.		
24. ADDITIONAL DATA					

DD FORM 1833
64 FEB

PREVIOUS EDITION IS OBSOLETE

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Figure J-1. Isolated Personnel Report (Front)

CONFIDENTIAL (WHEN FILLED IN)

AUTHORITY: 10 U.S.C. Sections 133, 3012, 5031 and 8012; EO 9397.

PRINCIPAL PURPOSE(S): It is essential to the combat search and rescue effort for the protection of search and rescue forces from enemy entrapment. The social security number is used to ensure positive identification.

ROUTINE USE(S): It will be completed by each aircrew member who may be subject to action in or over hostile territory. It contains personal information that may be used to ensure positive identification. After the aircrew member has completed the form it will be classified "CONFIDENTIAL."

DISCLOSURE IS VOLUNTARY: The information is necessary since it affects the entire search and rescue mission and effect on individual of not providing information could be loss of crew status.

LEFT HAND	CODE	PRINT CODE	CODE	RIGHT HAND
1. LITTLE FINGER		Arch KK		10. LITTLE FINGER
		Tented Arch LL		
		Finger Loop MM		
		Thumb Loop NN		
		Whorl OO		
2. RING		Finger Missing PP		9. RING
		Finger Mutilated QQ		
		Question/Uncertain YY		

Fold here

3. MIDDLE		PHOTOGRAPH (Front View)		8. MIDDLE
4. INDEX				7. INDEX
		PHOTOGRAPH (Profile View)		
5. THUMB				6. THUMB

DD FORM 1833, 84 FEB (REVERSE)

U.S. Government Printing Office: 1983-450-013/25042

CONFIDENTIAL (WHEN FILLED IN)

Figure J-2. Isolated Personnel Report (Back)

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APPENDIX K

SELECTED US MESSAGE TEXT FORMATS FOR COMBAT SEARCH AND RESCUE

1. Search and Rescue Incident Report (SARIR)

RAAUZYUW DDDHHMM-CCCC—
ZNR CCCCC
R DDHHMMZ MMM YY
FM REPORTING UNIT/COMMAND
TO JOINT SEARCH AND RESCUE CENTER DIRECTOR//JSRC//
INFO JOINT FORCE COMMANDER
 (COMPONENT RCC/RCT)
UNCLAS
EXER//
OPER//
MSGID/SARIR//
REF//
AMPN//
NARR//
CANX//
SEAINCDT//
SUBINCDT//
ACINCDT//
GNDINCDT//
SARAR//
ENACT//
MET//
AREATYP//
SARSTAT//
AVAILSAR//
GENTEXT/PERSONAL ID//
AKNLDG//

NNNN

2. Search and Rescue Situation Summary Report (SARSIT)

RAAUZYUW DDDHHMM-CCCC—
ZNR CCCCC
R DDHHMMZ MMM YY
FM REPORTING UNIT/COMMAND
TO JOINT SEARCH AND RESCUE CENTER DIRECTOR//JSRC//
INFO JOINT FORCE COMMANDER
 (COMPONENT RCC/RCT)
UNCLAS

Appendix K

EXER//
OPER//
MSGID/SARSIT//
REF//
AMPN//
NARR//
PERIOD//
SARMSN//
SEAINCDT//
SUBINCDT//
ACINCDT//
GNDINCDT//
ENACT//
WEATHER//
MSNLOC//
CONTROL//
TIMEAMP//
SARUNIT//
SARDATA//
AKNLDG//
#

NNNN

3. Search and Rescue Request (SARREQ)

RAAUZYUW DDDHHMM-CCCC—
ZNR CCCCC
R DDHHMMZ MMM YY
FM REQUESTING UNIT/COMMAND
TO JOINT SEARCH AND RESCUE CENTER DIRECTOR//JSRC//
INFO JOINT FORCE COMMANDER
 (COMPONENT RCC)
UNCLAS
EXER//
OPER//
MSGID/SARREQ//
REF//
AMPN//
NARR//
CANX//
SEAINCDT//
SUBINCDT//
ACINCDT//
GNDINCDT//
MET//
REQUEST//
TIMESPEC//

Selected US Message Text Formats for Combat Search and Rescue

CPMA//
FYFCE//
FYPOS//
ISR//
RDVU//
IFF//
TYCON//
EMCON//
COMMS//
CODES//
#

NNNN

NOTE: Above examples of SARIR, SARSIT, and SARREQ show all sets available for these USMTFs. Actual sets and addressees will vary from situation to situation. Complete administrative instructions for using these USMTFs may be found in the Joint Pub 6-04 Series.

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APPENDIX L

REFERENCES

1. The following references were reviewed and considered during the development of this publication.

2. DOD Memorandums

a. DJSM-1103-92, "DOD US POW/MIA Program."

b. MCM-136-91, "Delineation of Responsibilities for Evasion and Escape Within the Department of Defense."

3. Joint Publications

a. Joint Pub 0-2, "Unified Action Armed Forces (UNAAF)."

b. Joint Pub 1-01, "Joint Publication System, Joint Doctrine and Joint Tactics, Techniques, and Procedures Development Program."

c. Joint Pub 1-02, "DOD Dictionary of Military and Associated Terms."

d. Joint Pub 1-03.30, "Joint Reporting Structure, Joint After-Action Reporting System."

e. Joint Pub 2-0, "Joint Doctrine for Intelligence Support to Operations."

f. Joint Pub 2-01, "Joint Intelligence Support to Military Operations."

g. Joint Pub 2-01.2, "Joint Doctrine, and Tactics, Techniques, and Procedures for Counterintelligence Support to Operations."

h. Joint Pub 3-0, "Doctrine for Joint Operations."

i. Joint Pub 3-01.2, "Joint Doctrine for Theater Counterair Operations."

j. Joint Pub 3-02, "Joint Doctrine for Amphibious Operations."

k. Joint Pub 3-04, "Doctrine for Joint Maritime Operations (Air)."

l. Joint Pub 3-04.1, "Joint Tactics, Techniques, and Procedures for Shipboard Helicopter Operations."

m. Joint Pub 3-05, "Doctrine for Joint Special Operations."

n. Joint Pub 3-05.3, "Joint Special Operations Operational Procedures."

o. Joint Pub 3-09, "Doctrine for Joint Fire Support."

Appendix L

p. Joint Pub 3-50 (COMDTINST M16120.5 (Series)), "National Search and Rescue Manual, Volume I, National Search and Rescue System."

q. Joint Pub 3-50.1 (COMDTINST M16120.6 (Series)), "National Search and Rescue Manual, Volume II, Planning Handbook."

r. Joint Pub 3-50.21, "Joint Tactics, Techniques, and Procedures for Combat Search and Rescue."

s. Joint Pub 3-50.3, "Joint Doctrine for Evasion and Recovery."

t. Joint Pub 3-52, "Doctrine for Joint Airspace Control in the Combat Zone."

u. Joint Pub 3-56, "Command and Control Doctrine for Joint Operations."

v. Joint Pub 3-56.24, "Tactical Command and Control Planning Guidance and Procedures for Joint Operations - Joint Interface Operational Procedures - Message Text Formats." (To become CJCSI 6120.05)

w. Joint Pub 4-02, "Doctrine for Health Service Support in Joint Operations."

x. Joint Pub 5-03.1, "Joint Operation Planning and Execution System Vol I: (Planning Policies and Procedures)."

y. Joint Pub 5-03.2, "Joint Operation Planning and Execution System Vol II: (Planning and Execution Formats and Guidance)."

z. Joint Pub 5-03.21, "Joint Operation Planning and Execution System, Vol II: (Planning and Execution Formats and Guidance)." (Secret Supplement)

aa. Joint Pub 6-04.10, "US Message Text Formatting Program, Description of US Message Text Formatting Program." (To become CJCSI 5725.02)

bb. Joint Pub 6-04.20, "US Message Text Formatting Program, Catalog of US Message Text Formats." (To become CJCSI 5725.04)

cc. Joint Pub 6-04.21, "US Message Text Formatting Program, Catalog of US Message Text Formats, Message Preparation Instructions, (A-H)." (To become CJCSI 5725.05)

dd. Joint Pub 6-04.22, "US Message Text Formatting Program, Catalog of US Message Text Formats, Message Preparation Instructions, (I-O)." (To become CJCSI 5725.06)

ee. Joint Pub 6-04.23, "US Message Text Formatting Program, Catalog of US Message Text Formats, Message Preparation Instructions (P-Z)." (To become CJCSI 5725.07)

4. Multi-Service Publications. FM 90-18/FMFRP 2-70/MACP 64-3/ACCP50-51/COMDTINST M16120.8/USAFEP 50-51/PACAF 50-52, "Multi-Service (Army, Marine

Corps, Navy, Tactical Air Forces, AMC, Coast Guard) Procedures for Combat Search and Rescue (CSAR).”

5. US Navy Publications

- a. OPNAVINST 3130.7, “Naval Aviation Strike Rescue Program.”
- b. NAVAIR 00-80T-105, “CV NATOPS Manual.”
- c. NAVAIR 00-80T-106, “LHA/LPH/LHD NATOPS Manual.”
- d. NWP 1, “Strategic Concepts of the U.S. Navy.”
- e. NWP 8, “Command and Control” (CONFIDENTIAL).
- f. NWP 11, “Naval Operational Planning.”
- g. NWP 19-1, “Navy Search and Rescue (SAR) Manual.”
- h. NWP 19-2, “Combat Search and Rescue Procedures (Search and Rescue).”
- i. NWP 19-4, “Joint Recovery Operations” (SECRET).
- j. NWP 42, “Shipboard Helicopter Operating Procedures.”
- k. NWP 55-8-SAR, “Navy Search and Rescue Information Document (SAR TACAID).”
- l. NWP 55-9-ASH/FMFM 5-3, “Assault Support Helicopter Tactical Manual” (Volumes I and II) (Note: Volume II is SECRET/NOFORN/ WNINTEL).
- m. Navy Supplement to NWP 19-2 (Rev. A), “Combat Search and Rescue Manual.”

6. US Air Force Publications

- a. AFM 1-1, “Basic Aerospace Doctrine of the United States Air Force.”
- b. AFM 2-1, “Tactical Air Operations - Counter Air, Close Air Support, and Air Interdiction.”
- c. AFM 2-12, “Tactical Air Operations - Airspace Control in the Combat Zone.”
- d. AF Doctrine Document 34, “Combat Search and Rescue Operations.”
- e. AFM 64-2, “National Search and Rescue Manual.”
- f. AFR 64-3, “Combat Search and Rescue Procedures.”

7. US Army Publications

- a. FM 90-18, "Multi-Service Procedures for Combat Search and Rescue"
- a. FM 1-100, "Doctrinal Principles for Army Aviation in Combat Operations."
- b. FM 1-101, "Aviation Battlefield Survivability."
- c. FM 8-10-6, "Medical Evacuation in a Theater of Operations."
- d. FM 21-77-A, "Joint Worldwide Evasion and Escape Manual."
- e. FM 100-5, "Operations."
- f. FM 100-25, "Doctrine for Army Special Operations."

8. US Marine Corps Publications

- a. FMFM 2-7, "Fire Support in MAGTF Operations."
- b. FMFM 5-1, "Organization and Function of Marine Aviation."
- c. FMFM 5-3/NWP 55-9-ASH, "Assault Support Helicopter Tactical Manual" (Volumes I and II) (Note: Volume II is SECRET/NOFORN/ WNINTEL).
- d. FMFM 5-4, "Offensive Air Support."
- e. FMFM 5-41, "Close Air Support and Close-in Fire Support."
- f. OH 5-8, "Control of Aircraft and Missiles."

9. US Coast Guard Publications

- a. COMDTINST M16130.2, "U.S. Coast Guard Addendum to National Search and Rescue Manual."
- b. COMDTINST M3710.1 (Series), "Air Operations Manual."
- c. COMDTINST M3710.2 (Series), "Shipboard-Helicopter Operational Procedures Manual."

10. Combined Publications

- a. ATP-10(C), "Search and Rescue."
- b. ATP-33, "Tactical Air Doctrine."
- c. ATP-40, "Doctrine and Procedures for Airspace Control in the Combat Zone."

APPENDIX M

ADMINISTRATIVE INSTRUCTIONS

1. User Comments

Users in the field are highly encouraged to submit comments on this publication to the Joint Warfighting Center, Attn: Doctrine Division, Fenwick Road, Bldg 96, Fort Monroe, VA 23651-5000. These comments should address content (accuracy, usefulness, consistency, and organization), writing, and appearance.

2. Authorship

The lead agent for this publication is the US Navy. The Joint Staff doctrine sponsor for this publication is the Director for Operational Plans and Interoperability (J-7).

3. Change Recommendations

- a. Recommendations for urgent changes to this publication should be submitted:

TO: CNO WASHINGTON DC//N511//
INFO: JOINT STAFF WASHINGTON DC//J7-JDD//

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- b. When a Joint Staff directorate submits a proposal to the Chairman of the Joint Chiefs of Staff that would change source document information reflected in this publication, that directorate will include a proposed change to this publication as an enclosure to its proposal. The Military Services and other organizations are requested to notify the Director, J-7, Joint Staff, when changes to source documents reflected in this publication are initiated.

- c. Record of Changes

CHANGE NUMBER	COPY NUMBER	DATE OF CHANGE	DATE ENTERED	POSTED BY	REMARKS

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| Army: | US Army AG Publication Center
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| Navy: | CO, Navy Aviation Supply Office
Distribution Division (Code 03443)
5801 Tabor Avenue
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| Marine Corps: | Marine Corps Logistics Base
Albany, GA 31704-5000 |
| Coast Guard: | Coast Guard Headquarters, COMDT (G-REP)
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Washington, D.C. 20593-0001 |

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GLOSSARY

PART I—ABBREVIATIONS AND ACRONYMS

AAA	antiaircraft artillery
ABCCC	Airborne Battlefield Command and Control Center
ADP	automated data processing
AFCC	Air Force component commander
AMC	airborne mission commander
AO	area of operations
AOA	amphibious objective area
AOC	Air Operations Center
AOR	area of responsibility
AWACS	Airborne Warning and Control System
C2	command and control
C4I	command, control, communications, computers, and intelligence
C4	command, control, communications, and computers
CAF	Combat Air Forces
CAS	close air support
CATF	Commander, Amphibious Task Force
CE	command element
CLF	Commander, Landing Force
COMDTINST	Commandant (US Coast Guard) Instruction
COMSEC	communications security
CONPLAN	operation plan in concept format
CSAR	combat search and rescue
CSARTF	combat search and rescue task force
CVBG	carrier battle group
DISUM	daily intelligence summary
DOD	Department of Defense
E&R	evasion and recovery
EPA	evasion plan of action
FAC	forward air controller
FAX	facsimile
GCE	ground combat element
HCS	helicopter combat support (Navy)
HIFR	helicopter in-flight refueling
HS	helicopter ASW squadron (Navy)
IFF	identification, friend or foe
INTREP	intelligence report

Glossary

INTSUM	intelligence summary
IR	infrared
ISOPREP	isolated personnel report
J-2	joint command intelligence directorate
J-3	joint command operations directorate
J-4	joint command logistics directorate
J-5	joint command plans and policy directorate
J-6	joint command, control, communications and computer systems directorate
JFC	joint force commander
JFSOC	joint force special operations component
JFSOCC	joint force special operations component commander
JIC	joint intelligence center
JISE	joint intelligence support element
JOA	joint operations area
JOC	joint operations center (special operations component)
JSRC	joint search and rescue center
JTF	joint task force
LAN	local-area network
LF	landing force
LRSU	long-range surveillance unit
MAGTF	Marine air-ground task force
MAJCOM	major command (Army/Air Force)
MEDEVAC	medical evacuation
MDZ	maritime defense zone
MPA	maritime patrol aircraft
nm	nautical mile(s)
NGFS	naval gun fire support
NSW	naval special warfare
NVG	night vision goggles
OJT	on-the-job training
OPCON	operational control
OPLAN	operation plan
OPORD	operation order
OPSEC	operations security
OSC	on-scene commander
OTC	officer in tactical command (Navy)
PJ	pararescue personnel
PLS	Personnel Locator System
PSYOP	psychological operations
RCC	rescue coordination center

RCT	rescue coordination team (Navy)
RESCAP	rescue combat air patrol
RESCORT	rescue escort
SAFE	selected area for evasion
SAR	search and rescue
SARIR	search and rescue incident report
SARREQ	search and rescue request
SARSIT	search and rescue situation summary report
SATCOM	satellite communications
SEAL	sea-air-land (Navy)
SERE	survival, evasion, resistance, and escape
SF	Army special forces
SOC	special operations command
SOF	special operations forces
SOP	standing operating procedure
SPINS	special instructions
SRI	surveillance, reconnaissance, and intelligence (Marine Corps)
SRU	search and rescue unit
SUBOPAUTH	submarine operating authority
TACON	tactical control
TRAP	tactical recovery of aircraft and personnel (Marine Corps)
TTP	tactics, techniques, and procedures
USAF	United States Air Force
USCG	United States Coast Guard
USMTF	US message text format
USSOCOM	United States Special Operations Command
WAN	wide-area network
WPB	patrol boat (Coast Guard)

PART II—TERMS AND DEFINITIONS

authentication. 1. A security measure designed to protect a communications system against acceptance of a fraudulent transmission or simulation by establishing the validity of a transmission, message, or originator. 2. A means of identifying individuals and verifying their eligibility to receive specific categories of information. 3. Evidence by proper signature or seal that a document is genuine and official. 4. In evasion and recovery operations, the process whereby the identity of an evader is confirmed. (Joint Pub 1-02)

combat air patrol. An aircraft patrol provided over an objective area, over the force protected, over the critical area of a combat zone, or over an air defense area, for the purpose of intercepting and destroying hostile aircraft before they reach their target. (Joint Pub 1-02)

combat search and rescue. A specific task performed by rescue forces to effect the recovery of distressed personnel during war or military operations other than war. Also called CSAR. (Upon approval of this revision, this term and its definition will modify the existing term and its definition and will be included in Joint Pub 1-02)

combat search and rescue mission coordinator. The designated person or organization selected to direct and coordinate support for a specific combat search and rescue mission. Also called CSAR mission coordinator. (Joint Pub 1-02)

combat search and rescue task force. All forces committed to a specific combat search and rescue operation to search for, locate, identify, and recover isolate personnel during wartime or contingency operations. This includes those elements assigned to provide command and control

and protect the rescue vehicle from enemy air or ground attack. Also called CSARTF. (This term and its definition are provided for information and are proposed for inclusion in the next edition of Joint Pub 1-02 by Joint Pub 3-50.21.)

combat survival. Those measures to be taken by Service personnel when involuntarily separated from friendly forces in combat, including procedures relating to individual survival, evasion, escape, and conduct after capture. (Joint Pub 1-02)

component search and rescue controller. The designated search and rescue representative of a component commander of a joint force who is responsible for coordinating and controlling that component's search and rescue forces. (Joint Pub 1-02)

coordinating authority. A commander or individual assigned responsibility for coordinating specific functions or activities involving forces of two or more Military Departments or two or more forces of the same Service. The commander or individual has the authority to require consultation between the agencies involved, but does not have the authority to compel agreement. In the event that essential agreement cannot be obtained, the matter shall be referred to the appointing authority. Coordinating authority is a consultation relationship, not an authority through which command may be exercised. Coordinating authority is more applicable to planning and similar activities than to operations. (Joint Pub 1-02)

ditching. Controlled landing of a distressed aircraft on water. (Joint Pub 1-02)

duckbutt. An aircraft assigned to perform precautionary search and rescue or combat

search and rescue missions, support deployment of single-engine aircraft, or meet other specialized situations. The aircraft can perform a secondary role as navigation aid to passing aircraft. The aircraft is electronically equipped to provide radar tracking, homing, and steering, and gives position and weather reports as required. (Joint Pub 1-02)

emergency locator beacon. A generic term for all radio beacons used for emergency locating purposes. (Joint Pub 1-02)

evader. Any person isolated in hostile or unfriendly territory who eludes capture. (Joint Pub 1-02)

evasion. The process whereby individuals who are isolated in hostile or unfriendly territory avoid capture with the goal of successfully returning to areas under friendly control. (Joint Pub 1-02)

evasion and escape. The procedures and operations whereby military personnel and other selected individuals are enabled to emerge from an enemy-held or hostile area to areas under friendly control. (Joint Pub 1-02)

evasion plan of action. A course of action, developed prior to executing a combat mission, which is intended to improve a potential evader's chances of successful evasion and recovery by providing recovery forces with an additional source of information that can increase the predictability of the evader's action and movement. (Joint Pub 1-02)

homing. The technique whereby a mobile station directs itself, or is directed, towards a source of primary or reflected energy, or to a specified point. (Joint Pub 1-02)

homing adaptor. A device which, when used with an aircraft radio receiver, produces

aural and/or visual signals which indicate the direction of a transmitting radio station with respect to the heading of the aircraft. (Joint Pub 1-02)

isolated personnel. Military or civilian personnel that have become separated from their unit or organization in an environment requiring them to survive, evade, or escape while awaiting rescue or recovery. (Joint Pub 1-02)

joint combat search and rescue operation. A combat search and rescue operation in support of a component's military operations that has exceeded the combat search and rescue capabilities of that component and requires the efforts of two or more components of the joint force. Normally, the operation is conducted by the joint force commander or a component commander that has been designated by joint force commander tasking. (Joint Pub 1-02)

joint force commander. A general term applied to a combatant commander, subunified commander, or joint task force commander authorized to exercise combatant command (command authority) or operational control over a joint force. Also called JFC. (Joint Pub 1-02)

joint search and rescue center. A primary search and rescue facility suitably staffed by supervisory personnel and equipped for planning, coordinating, and executing joint search and rescue and combat search and rescue operations within the geographical area assigned to the joint force. The facility is operated jointly by personnel from two or more Service or functional components or it may have a multinational staff of personnel from two or more allied or coalition nations (multinational search and rescue center). The joint search and rescue center should be staffed equitably by trained personnel drawn from each joint force

component, including US Coast Guard participation where practical. Also called JSRC. (Joint Pub 1-02)

joint search and rescue center director. The designated representative with overall responsibility for operation of the joint search and rescue center. (Joint Pub 1-02)

lifeguard submarine. A submarine employed for rescue in an area which cannot be adequately covered by air or surface rescue facilities because of enemy opposition, distance from friendly bases, or other reasons. It is stationed near the objective and sometimes along the route to be flown by the strike aircraft. (Joint Pub 1-02)

maritime environment. The oceans, seas, bays, estuaries, islands, coastal areas, and the airspace above these, including amphibious objective areas. (Joint Pub 1-02)

mission type order. 1. Order issued to a lower unit that includes the accomplishment of the total mission assigned to the higher headquarters. 2. Order to a unit to perform a mission without specifying how it is to be accomplished. (Joint Pub 1-02)

on-scene commander. The person designated to coordinate the rescue efforts at the rescue site. (Joint Pub 1-02)

operational control. Transferable command authority that may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in combatant command (command authority). Operational control may be delegated and is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving

authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command. Operational control should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and Service and/or functional component commanders. Operational control normally provides full authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned missions. Operational control does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training. Also called OPCON. (Joint Pub 1-02)

pararescue team. Specially trained personnel qualified to penetrate to the site of an incident by land or parachute, render medical aid, accomplish survival methods, and rescue survivors. (Joint Pub 1-02)

precautionary search and rescue/combat search and rescue. The planning and prepositioning of aircraft, ships, or ground forces and facilities before an operation to provide search and rescue or combat search and rescue assistance if needed. The planning of precautionary search and rescue or combat search and rescue is usually done by plans personnel with search and rescue or combat search and rescue expertise and background on a J-3 (operations staff), a joint search and rescue center, or a rescue coordination center. Also called precautionary SAR/CSAR. (Joint Pub 1-02)

recovery. 1. In air operations, that phase of a mission which involves the return of an

aircraft to a base. 2. In naval mine warfare, salvage of a mine as nearly intact as possible to permit further investigation for intelligence and/or evaluation purposes. 3. In amphibious reconnaissance, the physical extraction of landed forces or their link-up with friendly forces. 4. In evasion and recovery operations, the return of evaders to friendly control, either with or without assistance, as the result of planning, operations, and individual actions on the part of recovery planners, conventional/unconventional recovery forces, and/or the evaders themselves. (Joint Pub 1-02)

rescue combat air patrol. An aircraft patrol provided over a combat search and rescue objective area for the purpose of intercepting and destroying hostile aircraft. Its primary mission is to protect the search and rescue task force during recovery operations. (Joint Pub 1-02)

rescue coordination center. A primary search and rescue facility suitably staffed by supervisory personnel and equipped for coordinating and controlling search and rescue and/or combat search and rescue operations. The facility is operated unilaterally by personnel of a single Service or component. For Navy component operations, this facility may be called a rescue coordination team. Also called RCC (or RCT for Navy component). (Joint Pub 1-02)

SANDY. Callsign for a US Air Force pilot specially trained in search procedures, aircrew survival and authentication techniques, and helicopter support tactics. (This term and its definition are applicable only in the context of this pub and cannot be referenced outside this publication.)

search and rescue. The use of aircraft, surface craft, submarines, specialized rescue teams and equipment to search for

and rescue personnel in distress on land or at sea. Also called SAR. (Joint Pub 1-02)

search and rescue mission coordinator. The designated person or organization selected to direct and coordinate support for a specific search and rescue mission. Also called SAR mission coordinator. (Joint Pub 1-02)

search radius. In search and rescue operations, a radius centered on a datum point having a length equal to the total probable error plus an additional safety length to ensure a greater than 50 percent probability that the target is in the search area. (Joint Pub 1-02)

selected area for evasion. A designated area in hostile territory that offers the evader or escapee a reasonable chance of avoiding capture and of surviving until he can be evacuated. Also called SAFE. (Joint Pub 1-02)

tactical control. Command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed and, usually, local direction and control of movements or maneuvers necessary to accomplish missions or tasks assigned. Tactical control is inherent in operational control. Tactical control may be delegated to, and exercised at any level at or below the level of combatant command. Also called TACON. (Joint Pub 1-02)

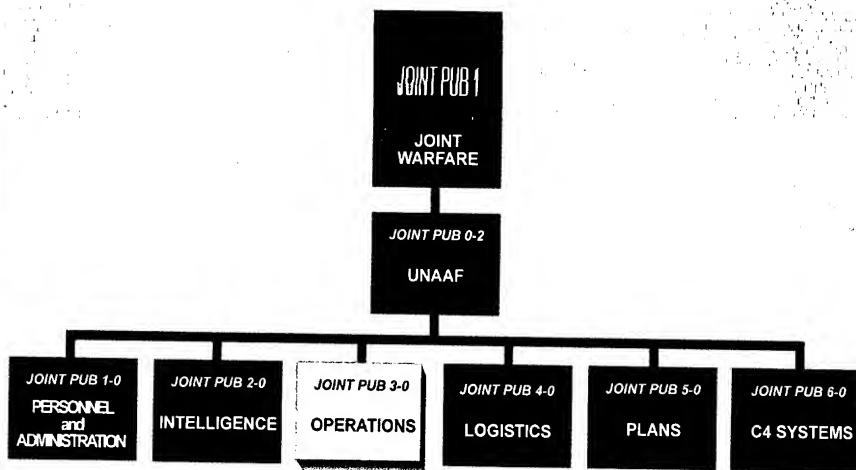
tactical recovery of aircraft and personnel. A US Marine Corps term describing a mission performed by an assigned and briefed aircrew for the specific purpose of the recovery of personnel, equipment, and/or aircraft when the tactical situation precludes search and rescue (SAR) assets from responding and when survivors and

Glossary

their location have been confirmed. Also called TRAP. (This term and its definition are applicable only in the context of this

pub and cannot be referenced outside this publication.)

JOINT DOCTRINE PUBLICATIONS HIERARCHY



All joint doctrine and tactics, techniques, and procedures are organized into a comprehensive hierarchy as shown in the chart above. Joint Pub 3-50.2 is in the Operations series of joint doctrine publications. The diagram below illustrates an overview of the development process:

STEP #5 Assessments/Revision

- The CINCS receive the pub and begin to assess it during use
- 18 to 24 months following publication, the Director J-7, will solicit a written report from the combatant commands and Services on the utility and quality of each pub and the need for any urgent changes or earlier-than-scheduled revisions
- No later than 5 years after development, each pub is revised

STEP #1 Project Proposal

- Submitted by Services, CINCS, or Joint Staff to fill extant operational void
- J-7 validates requirement with Services and CINCS
- J-7 initiates Program Directive

STEP #2 Program Directive

- J-7 formally staffs with Services and CINCS
- Includes scope of project, references, milestones, and who will develop drafts
- J-7 releases Program Directive to Lead Agent. Lead Agent can be Service, CINCS, or Joint Staff (JS) Directorate

Project
Proposal

